

Fallout Exposure Rate Prediction Tables



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PREFACE

The Federal Emergency Management Agency's (FEMA's) technical report "Techniques for Predicting Fallout Radiation Exposures from Exposure and Exposure Rate Measurements", TR-89, describes a technique for estimating future exposures to fallout radiation from exposure rate measurements obtained soon after the cessation of fallout. This technical report, "Fallout Exposure Rate Prediction Tables", TR-90, uses the same techniques to estimate future exposure rates. Together, these two technical reports enable the user to estimate or predict radiation exposures and exposure rates based on actual exposure rate measurements without knowing whether the fallout was derived from one or more detonations, the date and time when the detonations occurred, or whether the detonations occurred at the same time or at different times.

This report was prepared as a work product of contract number EMW-C-0957 with FEMA.

This report has been reviewed by FEMA and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of FEMA.

FALLOUT EXPOSURE RATE PREDICTION TABLES

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ABSTRACT

Tables have been developed for predicting future exposure rates from actual exposure rate measurements obtained soon after fallout arrival. These tables would provide a reasonable estimate of future exposure rates even if the fallout originated from multiple, non-simultaneous detonations or if the time of detonation were unknown. These tables have been developed from the same algorithm used to derive accumulated exposure prediction tables already published [Fr85]. Also provided are computer programs written in BASIC to perform both exposure rate and accumulated exposure predictions. These programs are based on the same algorithms used to derive the prediction tables.

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INTRODUCTION

Tables have been published for predicting the accumulated or total exposure expected over future time intervals at a particular location affected by fallout [Fr85]. These predictions are made from actual exposure rate measurements taken soon after fallout deposition is complete. These tables would yield good exposure estimates even if the fallout originated from multiple, simultaneous detonations or if the time of detonation were unknown.

The subject of this paper is a similar set of tables to be used to predict the instantaneous exposure rate (as opposed to the integral or accumulated exposure) at some future time from exposure rate measurements obtained soon after fallout deposition is complete. The prediction of exposure rates is inherently less accurate than is the prediction of accumulated exposures because the latter is less affected by short term fluctuations in fallout exposure rates.

The purpose of accumulated exposure prediction is to assess the risk associated with any activity or operation in a radiation area. The purpose of exposure rate prediction, on the other hand, is more to provide an estimate of the radiation field one would expect at a particular location at some future time. This, for example, could be used to determine whether an earlier assessment of the radiation area and associated risks is still applicable at the onset of the planned activity. Also, with exposure rate prediction tables, one could establish the exposure rates to be expected at future times so that any significant deviation from these expectations could be noted immediately.

The basis of both the accumulated exposure prediction tables and the exposure rate prediction tables are the "typical" fallout radionuclide compositions calculated by Hicks [Hi84]. In particular, the composition referred to as the "TUBALLOY" mixture has been used because the inventory of fission product

and neutron induced radionuclides are applicable to current weapon design and deployment strategies. This fallout radionuclide composition, the possible variations in this inventory, and the implications of these variations on the accuracy of exposure prediction already have been investigated and reported [Fr85].

Computer programs written in BASIC are included in Appendix C for both exposure rate and accumulated exposure predictions. The algorithm used in these programs is the same used to generate the tables in Appendix A and is described in more detail in Appendix B.

DERIVATION OF EXPOSURE RATE PREDICTION TABLES

The exposure rates from a typical fallout radionuclide composition decrease in time according to the individual half-lives of the gamma emitting radionuclides that comprise fallout and the half-lives of their precursor radionuclides. The kinetics equations that describe this behavior are well known but cumbersome to use because of the hundreds of radionuclides that can contribute to fallout exposure rates at any time. Simple analytic functions that yield very good approximations for the time dependent exposure rates from this mixture have been derived. A nine term exponential function is used here to describe the relative exposure rates one would expect from a TUBALLOY mixture of fallout radionuclides during the first six months post fallout formation. This equation was used to generate the exposure rate prediction tables in Appendix A as well as the exposure prediction tables referenced above [Fr85]. This equation and the technical details on the derivation of exposure rate prediction tables are given in Appendix B.

For fallout that originates from one detonation or from multiple, simultaneous detonations, only one exposure rate measurement would be needed to

characterize the intensity of the fallout radiation field as long as the time of detonation is known with reasonable accuracy. In other words, only one exposure rate measurement would be needed to normalize the above function if the time of detonation were known. In practice one would not necessarily know the time of detonation or the fallout may originate from multiple, non-simultaneous detonations, in which case there is no single detonation time to reference. This means that two or more exposure rate measurements and the time between them would be needed to make an exposure rate or an accumulated exposure prediction. These and other practical considerations have been researched and reported [Fr85].

It has been established that, regardless of the fallout mixture, the relative exposure rate at future times varies in a predictable manner if the reference time used is the effective half-life of the fallout mixture rather than the time post fallout formation. The effective half-life of a fallout mixture is actually a construct used to account for the effective age of any given fallout mixture. An equally valid indicator of this age is ratio of two exposure rates and the time between these two measurements. This means that such a ratio can be used to characterize a fallout field even when the detonation time is unknown and the fallout originated from multiple, non-simultaneous detonations. The exposure rate prediction tables in Appendix A were derived by using this ratio to characterize the age of the unknown fallout mixture and correlate this with the TUBALLOY function to predict future exposure rates. Further details concerning the derivation of these tables are given in Appendix B.

The best way to predict future exposure or exposure rates would be to perform a least squares fit to exposure rate measurements. Because more than two measurements could be used to characterize the fallout source, more degrees of freedom are possible and a better characterization should occur. It has been found, however, that exposure rate measurements would have to be extended in

time to accurately characterize the longer lived exposure rate contributors and that earlier measurements would yield poor predictions. In other words, to characterize fallout exposure rates with time dependence expressed as a sum of nine exponentials would require at least nine exposure rate measurements and would have to be obtained days or even weeks after fallout deposition to accurately determine the coefficients of the longer term exponentials. Because exposure and exposure rate predictions are needed soon after fallout deposition is complete, this requirement is impractical. A compromise can be made by coupling the longer term exponential coefficients with the shorter term coefficients in fixed ratios. A five coefficient equation has been found that would produce reasonable results [Fr85]. From a practical point of view, the two measurement technique used in both the tables and computer programs of this report is better.

APPLICATION OF EXPOSURE RATE TABLES

The user of these tables would first have to obtain two exposure rate measurements and record the time interval between these measurements. If the exposure rates decrease sufficiently over this time, an accurate prediction can be made. The measurements would have to be made after fallout deposition is complete. This means that exposure rates would have been declining for at least several hours. Note that the peak in exposure rates does not correspond to the time of fallout cessation but occurs when the rate of decay in gamma emitting fallout radionuclides exceeds their rate of buildup by fallout deposition. Fallout cessation should occur within a few hours of the exposure rate peak, if it is discernable.

The user would determine the ratio of the second exposure rate measurement,

X_2 to the first measurement, X_1 . The appropriate table is chosen using the time between these two measurements and the prediction time. The prediction time is the time between the second exposure rate measurement and the exposure rate to be predicted. The user would select the appropriate factor from the table and predict the exposure rate by multiplying this factor times the second exposure rate.

As an example, consider a person who begins measuring the exposure rates within a sheltered facility as soon as fallout arrives. Ideally, exposure rates would increase to some peak value then decrease in time. In actuality, one would expect fluctuations especially soon after fallout arrives when the distribution of fallout on or near the area is changing. Suppose that the measurements in Table 1 were obtained over the first two days following fallout arrival and recorded with the time after fallout arrival (note that the time of arrival can be greatly different than the time of detonation and is usually taken to be the time that the first significant exposure rate is measured, for example 0.5 R/h as an unsheltered measurement on a high range ionization survey meter).

Note that seldom will an exposure rate measurement be obtained to more than two significant digits when the exposure rates are less than 10.0 R/h because of fluctuations in the meter response. These measurements would have been obtained on an instrument like the CDV 715 ionization survey meter maintained and calibrated by state emergency management agencies and intended for high exposure rate measurements.

One could use any of the decreasing exposure rate measurements to obtain an exposure rate prediction. The most recent measurement should naturally be one of the measurements used to make a prediction. In this example, the measurements close to the peak exposure rate may not be typical of the fallout source because fallout deposition may not have been complete for several hours after

TABLE 1

| Time After Fallout Arrival (hours) | Measured Exposure Rate (R/hr) |
|--|-------------------------------------|
| 0 | 0.05 |
| 1 | 0.6 |
| 2 | 1.3 |
| 3 | 3.8 |
| 4 | 7.8 |
| 5 | 8.3 |
| 6 | 8.9 |
| 7 | 9.1 |
| 8 | 10.0 |
| 9 | 9.9 |
| 10 | 9.8 |
| 11 | 9.2 |
| 12 | 8.8 |
| 13 | 8.3 |
| 14 | 7.9 |
| 15 | 7.4 |
| 16 | 7.1 |
| 17 | 6.7 |
| 18 | 6.4 |
| 19 | 6.1 |
| 20 | 5.9 |
| 21 | 5.6 |
| 22 | 5.4 |
| 23 | 5.2 |
| 24 | 5.0 |
| 26 | 4.7 |
| 28 | 4.4 |
| 30 | 4.1 |
| 32 | 3.8 |
| 34 | 3.7 |
| 36 | 3.6 |
| 38 | 3.3 |
| 40 | 3.1 |
| 42 | 3.0 |
| 44 | 2.8 |
| 46 | 2.7 |
| 48 | 2.6 |

the peak exposure rate measurement. This gives the user the option of using the exposure rate measurements obtained later than about 12 hours after fallout arrival. For example, one could predict the exposure rate 120 hours later (one week after fallout arrival) by using the 28 hour measurement and the 48 hour measurement. In this case X_1 would be 4.4, X_2 would be 2.6, the time between measurements would be 20 hours, and the prediction time would be 120 hours. Using the table for 20 hours between measurements and a calculated ratio of $2.6/4.4 = 0.59$, the factor given in the table would be 0.2750, therefore an exposure rate of 0.72 R/h would be expected 120 hours after the last exposure rate measurement, obtained by multiplying 2.6 R/h by the factor 0.2750.

One could obtain more than one estimate of this exposure rate by choosing different X_1 and X_2 values. Table 2 shows the possible options and the resulting predictions. The consistency of these results adds confidence in the predicted result. Poor consistency in the same predicted exposure rate is an important indicator that the predictions are unreliable. This could happen, for example, if one were to use exposure rate measurements that were measured before fallout deposition were complete. If additional fallout deposited later than the first fallout arrival, all predictions would have to be based on measurements taken after all fallout deposition were complete. It is very important that all measurements be made with the same instrument so that systematic errors, such as calibration differences, do not invalidate exposure rate prediction. These and other problems are discussed elsewhere [Fr85].

ACCURACY AND PRECISION OF PREDICTIONS

The accuracy of an exposure rate prediction is a measure of how close a predicted exposure rate will be to the true (unknown) exposure rate. The precision of an exposure rate prediction refers to the reproducibility of an

TABLE 2

| X_1 | X_2 | ratio | time between measurements | prediction time | factor | predicted exp. rate |
|-------|-------|-------|------------------------------|--------------------|--------|------------------------|
| 4.4 | 2.6 | 0.59 | 20 | 120 | 0.2750 | 0.72 |
| 5.2 | 2.6 | 0.50 | 25 | 120 | 0.2794 | 0.73 |
| 6.4 | 2.6 | 0.41 | 30 | 120 | 0.2820 | 0.73 |
| 6.4 | 3.3 | 0.52 | 20 | 130 | 0.2297 | 0.76 |
| 8.3 | 3.3 | 0.40 | 25 | 130 | 0.2283 | 0.75 |

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exposure rate prediction. The principle difference between them is the systematic error one should expect with any exposure rate measuring instrument. In other words, if one were to predict an exposure rate and then measure the same value at the predicted time, the prediction would be considered very precise. If the instrument used for these measurements were calibrated to read 50% higher than actual, then the predicted exposure rate (and all of the measurements themselves), although precise, would be considered inaccurate.

The random behavior of radioactive decay and gamma radiation interactions as well as certain instrument characteristics will result in fluctuations in exposure rate measurements. This would be seen on a CDV 715 survey meter as a fluctuation in the indicator needle. These random fluctuations will determine the precision that exposure rates can be measured with and therefore the precision of exposure rate predictions.

The calibration of the instrument and changes in the fallout composition or geometry are just some of the factors that would cause systematic errors in exposure rate measurements and would limit the accuracy of exposure rate measurements and predictions. The important difference between these sources of error is that systematic errors would be unlikely to propagate a larger error in exposure rate predictions. For example, if the instrument measurements were systematically 50% higher than actual exposure rates, then the predicted exposure rate would be expected also to be 50% higher than the true exposure rate.

Random errors in the two exposure rate measurements, on the other hand, would propagate to a larger expected error in the exposure rate prediction. For example, if the first exposure rate measurement were to fluctuate to a higher measurement while the second measurement fluctuated to a lower measurement, the resulting prediction based on these two measurements would underestimate the correct prediction by more than the error associated with either measurement.

It is the random errors that determine how well the published tables predict future exposure rates.

In the referenced article [Fr85], the error associated with exposure predictions were estimated by assuming a 20% random error associated with each exposure rate measurement. This is probably too conservative when one considers the behavior of a high range ionization type survey meter. Although the rated accuracy of the instrument could very well be 20% - 30%, most of this would be due to systematic calibration error from one instrument to the next. As long as all measurements are taken with the same instrument, the random errors associated with each measurement will probably be much smaller. For example, the fluctuations one observes with a CDV 715 survey meter at the R/hr level of exposure rate is only a few % of the average measurement. Random errors of 5% and less would be typical for exposure rates greater than about 100 mR/hr. In fact, the round off error one causes by reading the instrument (where one usually rounds the reading off to the nearest tic mark on the scale) can exceed the random error in the readings.

The tables in this report and the exposure prediction tables have been selected to minimize the propagated random error in the predictions. This was done by printing tables only for certain ranges of exposure rate ratios, times between measurements, and prediction times. In addition, the changing behavior in shielded exposure rate measurements during the first 10 hours or so after detonation because of changes in the energy of emitted gamma radiations added further restrictions on which tables to publish. The tables in this report are for the same times as the exposure prediction tables referenced [Fr85].

The consequence of these restrictions is that one is unable to make predictions during the first day or so after detonation. If one cannot find a table that corresponds to the measurements to date, then the predictions that could have been made were considered to have too much uncertainty associated

with them.

In light of the previous discussion, it is now thought that these restrictions were too severe and that additional exposure and exposure rate prediction tables need to be published for smaller times between measurements and for higher values of the exposure rate measurement ratios. The computer programs included in Appendix C are not subject to these restrictions, but will print out warnings when the predictions are considered to be subject to large errors.

APPENDIX A

EXPOSURE RATE PREDICTION TABLES

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TIME BETWEEN MEASUREMENTS = 3 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.50 | .3825 | .2324 | .1852 | .1281 | .1045 | .0882 | .0762 | .0670 | .0597 | .0538 |
| 0.51 | .3875 | .2362 | .1881 | .1304 | .1065 | .0899 | .0777 | .0683 | .0609 | .0549 |
| 0.52 | .3925 | .2399 | .1710 | .1328 | .1095 | .0916 | .0792 | .0696 | .0621 | .0560 |
| 0.53 | .3976 | .2437 | .1740 | .1352 | .1105 | .0934 | .0807 | .0710 | .0633 | .0571 |
| 0.54 | .4027 | .2475 | .1770 | .1377 | .1126 | .0951 | .0823 | .0724 | .0646 | .0583 |
| 0.55 | .4078 | .2514 | .1801 | .1402 | .1147 | .0970 | .0839 | .0738 | .0659 | .0594 |
| 0.56 | .4129 | .2554 | .1832 | .1428 | .1169 | .0989 | .0855 | .0753 | .0672 | .0606 |
| 0.57 | .4182 | .2594 | .1864 | .1454 | .1191 | .1008 | .0872 | .0768 | .0686 | .0619 |
| 0.58 | .4235 | .2636 | .1897 | .1481 | .1214 | .1028 | .0890 | .0783 | .0699 | .0631 |
| 0.59 | .4289 | .2678 | .1931 | .1509 | .1238 | .1048 | .0908 | .0800 | .0714 | .0644 |
| 0.60 | .4343 | .2721 | .1965 | .1538 | .1262 | .1069 | .0926 | .0816 | .0729 | .0658 |

TIME BETWEEN MEASUREMENTS = 3 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.50 | .0490 | .0448 | .0413 | .0382 | .0355 | .0331 | .0309 | .0289 | .0272 | .0255 |
| 0.51 | .0499 | .0457 | .0421 | .0390 | .0362 | .0337 | .0315 | .0295 | .0277 | .0261 |
| 0.52 | .0509 | .0467 | .0430 | .0398 | .0370 | .0344 | .0322 | .0301 | .0283 | .0268 |
| 0.53 | .0520 | .0478 | .0439 | .0406 | .0377 | .0351 | .0328 | .0308 | .0289 | .0271 |
| 0.54 | .0530 | .0486 | .0447 | .0414 | .0385 | .0359 | .0335 | .0314 | .0295 | .0277 |
| 0.55 | .0541 | .0495 | .0458 | .0423 | .0393 | .0366 | .0342 | .0320 | .0301 | .0283 |
| 0.56 | .0552 | .0506 | .0466 | .0431 | .0401 | .0373 | .0349 | .0327 | .0307 | .0289 |
| 0.57 | .0563 | .0518 | .0475 | .0440 | .0409 | .0381 | .0358 | .0334 | .0313 | .0295 |
| 0.58 | .0575 | .0527 | .0485 | .0449 | .0418 | .0389 | .0364 | .0341 | .0320 | .0301 |
| 0.59 | .0587 | .0538 | .0496 | .0459 | .0426 | .0397 | .0372 | .0348 | .0327 | .0307 |
| 0.60 | .0599 | .0549 | .0506 | .0469 | .0436 | .0408 | .0380 | .0356 | .0334 | .0314 |

TIME BETWEEN MEASUREMENTS = 3 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.50 | .0215 | .0183 | .0158 | .0138 | .0122 | .0109 | .0098 | .0089 | .0081 | .0075 |
| 0.51 | .0219 | .0187 | .0161 | .0141 | .0125 | .0111 | .0100 | .0091 | .0083 | .0076 |
| 0.52 | .0224 | .0191 | .0165 | .0144 | .0127 | .0113 | .0102 | .0093 | .0085 | .0078 |
| 0.53 | .0228 | .0195 | .0168 | .0147 | .0130 | .0116 | .0104 | .0095 | .0086 | .0079 |
| 0.54 | .0233 | .0199 | .0172 | .0150 | .0133 | .0118 | .0108 | .0097 | .0088 | .0081 |
| 0.55 | .0238 | .0203 | .0175 | .0153 | .0135 | .0121 | .0109 | .0099 | .0090 | .0083 |
| 0.56 | .0243 | .0207 | .0179 | .0156 | .0138 | .0123 | .0111 | .0101 | .0092 | .0085 |
| 0.57 | .0248 | .0211 | .0183 | .0160 | .0141 | .0126 | .0113 | .0103 | .0094 | .0086 |
| 0.58 | .0253 | .0216 | .0186 | .0163 | .0144 | .0129 | .0116 | .0105 | .0096 | .0088 |
| 0.59 | .0259 | .0221 | .0191 | .0167 | .0147 | .0131 | .0118 | .0107 | .0098 | .0090 |
| 0.60 | .0264 | .0225 | .0195 | .0170 | .0151 | .0134 | .0121 | .0110 | .0100 | .0092 |

TIME BETWEEN MEASUREMENTS = 3 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.50 | .0065 | .0058 | .0052 | .0047 | .0043 | .0039 | .0036 | .0033 | .0030 | .0028 |
| 0.51 | .0067 | .0059 | .0053 | .0048 | .0044 | .0040 | .0036 | .0033 | .0031 | .0029 |
| 0.52 | .0068 | .0061 | .0054 | .0049 | .0044 | .0041 | .0037 | .0034 | .0032 | .0029 |
| 0.53 | .0070 | .0062 | .0055 | .0050 | .0045 | .0041 | .0038 | .0035 | .0032 | .0030 |
| 0.54 | .0071 | .0063 | .0057 | .0051 | .0046 | .0042 | .0039 | .0036 | .0033 | .0031 |
| 0.55 | .0073 | .0065 | .0058 | .0052 | .0047 | .0043 | .0040 | .0036 | .0034 | .0031 |
| 0.56 | .0074 | .0066 | .0059 | .0053 | .0048 | .0044 | .0040 | .0037 | .0034 | .0032 |
| 0.57 | .0076 | .0067 | .0060 | .0054 | .0049 | .0045 | .0041 | .0038 | .0035 | .0033 |
| 0.58 | .0077 | .0069 | .0062 | .0056 | .0050 | .0046 | .0042 | .0039 | .0036 | .0033 |
| 0.59 | .0079 | .0070 | .0063 | .0057 | .0052 | .0047 | .0043 | .0040 | .0037 | .0034 |
| 0.60 | .0081 | .0072 | .0064 | .0058 | .0053 | .0048 | .0044 | .0041 | .0037 | .0035 |

TIME BETWEEN MEASUREMENTS = 3 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.50 | .0021 | .0017 | .0014 | .0012 | .0011 | .0010 | .0009 | .0008 | .0007 | .0007 |
| 0.51 | .0022 | .0018 | .0015 | .0013 | .0011 | .0010 | .0009 | .0008 | .0007 | .0007 |
| 0.52 | .0022 | .0018 | .0015 | .0013 | .0011 | .0010 | .0009 | .0008 | .0008 | .0007 |
| 0.53 | .0023 | .0018 | .0015 | .0013 | .0012 | .0010 | .0009 | .0008 | .0008 | .0007 |
| 0.54 | .0023 | .0019 | .0016 | .0013 | .0012 | .0011 | .0009 | .0009 | .0008 | .0007 |
| 0.55 | .0024 | .0019 | .0016 | .0014 | .0012 | .0011 | .0010 | .0009 | .0008 | .0007 |
| 0.56 | .0024 | .0020 | .0016 | .0014 | .0012 | .0011 | .0010 | .0009 | .0008 | .0007 |
| 0.57 | .0025 | .0020 | .0017 | .0014 | .0013 | .0011 | .0010 | .0009 | .0008 | .0008 |
| 0.58 | .0025 | .0020 | .0017 | .0015 | .0013 | .0011 | .0010 | .0009 | .0009 | .0008 |
| 0.59 | .0026 | .0021 | .0017 | .0015 | .0013 | .0012 | .0011 | .0010 | .0009 | .0008 |
| 0.60 | .0027 | .0021 | .0018 | .0015 | .0013 | .0012 | .0011 | .0010 | .0009 | .0008 |

TIME BETWEEN MEASUREMENTS = 5 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .4595 | .2925 | .2131 | .1676 | .1380 | .1171 | .1016 | .0897 | .0802 | .0724 |
| 0.41 | .4634 | .2958 | .2157 | .1698 | .1399 | .1188 | .1031 | .0910 | .0813 | .0735 |
| 0.42 | .4674 | .2990 | .2184 | .1720 | .1418 | .1205 | .1046 | .0923 | .0826 | .0746 |
| 0.43 | .4713 | .3024 | .2212 | .1743 | .1438 | .1222 | .1061 | .0937 | .0838 | .0757 |
| 0.44 | .4753 | .3057 | .2239 | .1767 | .1458 | .1239 | .1076 | .0951 | .0850 | .0769 |
| 0.45 | .4793 | .3091 | .2268 | .1791 | .1478 | .1257 | .1092 | .0965 | .0863 | .0781 |
| 0.46 | .4833 | .3126 | .2296 | .1815 | .1499 | .1276 | .1109 | .0979 | .0877 | .0793 |
| 0.47 | .4874 | .3161 | .2326 | .1840 | .1521 | .1294 | .1125 | .0994 | .0890 | .0805 |
| 0.48 | .4916 | .3197 | .2356 | .1866 | .1543 | .1314 | .1143 | .1010 | .0904 | .0818 |
| 0.49 | .4958 | .3234 | .2387 | .1892 | .1566 | .1334 | .1160 | .1026 | .0919 | .0831 |
| 0.50 | .5001 | .3272 | .2419 | .1919 | .1589 | .1354 | .1179 | .1042 | .0934 | .0845 |
| 0.51 | .5045 | .3311 | .2452 | .1947 | .1614 | .1376 | .1198 | .1059 | .0949 | .0859 |
| 0.52 | .5090 | .3351 | .2486 | .1976 | .1639 | .1398 | .1217 | .1077 | .0965 | .0874 |
| 0.53 | .5136 | .3392 | .2521 | .2006 | .1665 | .1421 | .1238 | .1095 | .0982 | .0889 |
| 0.54 | .5183 | .3435 | .2558 | .2038 | .1692 | .1445 | .1259 | .1115 | .0999 | .0905 |
| 0.55 | .5230 | .3478 | .2595 | .2070 | .1720 | .1470 | .1281 | .1135 | .1017 | .0921 |
| 0.56 | .5280 | .3524 | .2635 | .2104 | .1750 | .1496 | .1304 | .1156 | .1036 | .0939 |
| 0.57 | .5330 | .3571 | .2675 | .2139 | .1780 | .1523 | .1329 | .1177 | .1056 | .0957 |
| 0.58 | .5382 | .3619 | .2718 | .2176 | .1812 | .1551 | .1354 | .1200 | .1077 | .0976 |
| 0.59 | .5435 | .3670 | .2762 | .2214 | .1846 | .1581 | .1381 | .1225 | .1099 | .0996 |
| 0.60 | .5490 | .3722 | .2808 | .2254 | .1881 | .1612 | .1409 | .1250 | .1122 | .1018 |

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TIME BETWEEN MEASUREMENTS = 5 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0660 | .0605 | .0658 | .0617 | .0480 | .0448 | .0419 | .0392 | .0369 | .0347 |
| 0.41 | .0670 | .0614 | .0567 | .0625 | .0488 | .0455 | .0425 | .0399 | .0374 | .0352 |
| 0.42 | .0680 | .0624 | .0675 | .0533 | .0495 | .0462 | .0432 | .0405 | .0380 | .0358 |
| 0.43 | .0690 | .0633 | .0584 | .0541 | .0503 | .0469 | .0439 | .0411 | .0386 | .0363 |
| 0.44 | .0701 | .0643 | .0693 | .0549 | .0611 | .0476 | .0445 | .0417 | .0392 | .0369 |
| 0.45 | .0711 | .0653 | .0602 | .0658 | .0619 | .0484 | .0452 | .0424 | .0398 | .0375 |
| 0.46 | .0723 | .0663 | .0612 | .0667 | .0627 | .0492 | .0460 | .0431 | .0405 | .0381 |
| 0.47 | .0734 | .0674 | .0621 | .0576 | .0535 | .0499 | .0467 | .0438 | .0411 | .0387 |
| 0.48 | .0746 | .0684 | .0632 | .0685 | .0544 | .0508 | .0475 | .0445 | .0418 | .0393 |
| 0.49 | .0758 | .0696 | .0642 | .0695 | .0553 | .0516 | .0483 | .0452 | .0425 | .0400 |
| 0.50 | .0770 | .0707 | .0653 | .0605 | .0563 | .0525 | .0491 | .0460 | .0432 | .0407 |
| 0.51 | .0783 | .0719 | .0664 | .0615 | .0572 | .0534 | .0499 | .0468 | .0440 | .0414 |
| 0.52 | .0797 | .0732 | .0675 | .0626 | .0582 | .0543 | .0508 | .0476 | .0448 | .0421 |
| 0.53 | .0811 | .0745 | .0688 | .0637 | .0593 | .0553 | .0517 | .0485 | .0456 | .0429 |
| 0.54 | .0826 | .0758 | .0700 | .0649 | .0604 | .0563 | .0527 | .0494 | .0464 | .0437 |
| 0.55 | .0841 | .0773 | .0713 | .0661 | .0615 | .0574 | .0537 | .0504 | .0473 | .0445 |
| 0.56 | .0857 | .0787 | .0727 | .0674 | .0627 | .0585 | .0548 | .0513 | .0482 | .0454 |
| 0.57 | .0874 | .0803 | .0742 | .0688 | .0640 | .0597 | .0559 | .0524 | .0492 | .0463 |
| 0.58 | .0892 | .0819 | .0757 | .0702 | .0653 | .0610 | .0570 | .0535 | .0503 | .0473 |
| 0.59 | .0910 | .0837 | .0773 | .0717 | .0667 | .0623 | .0583 | .0548 | .0513 | .0483 |
| 0.60 | .0930 | .0855 | .0790 | .0732 | .0682 | .0638 | .0595 | .0558 | .0525 | .0494 |

TIME BETWEEN MEASUREMENTS = 5 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0292 | .0249 | .0215 | .0188 | .0166 | .0149 | .0134 | .0122 | .0111 | .0102 |
| 0.41 | .0296 | .0253 | .0219 | .0191 | .0169 | .0151 | .0136 | .0123 | .0113 | .0104 |
| 0.42 | .0301 | .0257 | .0222 | .0194 | .0172 | .0153 | .0138 | .0125 | .0115 | .0105 |
| 0.43 | .0306 | .0261 | .0226 | .0197 | .0174 | .0156 | .0140 | .0127 | .0116 | .0107 |
| 0.44 | .0310 | .0265 | .0229 | .0200 | .0177 | .0158 | .0143 | .0129 | .0118 | .0109 |
| 0.45 | .0315 | .0269 | .0233 | .0204 | .0180 | .0161 | .0145 | .0132 | .0120 | .0111 |
| 0.46 | .0320 | .0274 | .0237 | .0207 | .0183 | .0164 | .0147 | .0134 | .0122 | .0112 |
| 0.47 | .0326 | .0278 | .0241 | .0210 | .0186 | .0166 | .0150 | .0136 | .0124 | .0114 |
| 0.48 | .0331 | .0283 | .0245 | .0214 | .0189 | .0169 | .0152 | .0138 | .0126 | .0116 |
| 0.49 | .0337 | .0288 | .0249 | .0218 | .0193 | .0172 | .0155 | .0141 | .0129 | .0118 |
| 0.50 | .0343 | .0293 | .0253 | .0221 | .0196 | .0175 | .0158 | .0143 | .0131 | .0120 |
| 0.51 | .0349 | .0298 | .0258 | .0225 | .0199 | .0178 | .0161 | .0146 | .0133 | .0122 |
| 0.52 | .0355 | .0303 | .0262 | .0229 | .0203 | .0181 | .0163 | .0148 | .0138 | .0125 |
| 0.53 | .0361 | .0309 | .0267 | .0234 | .0207 | .0185 | .0167 | .0151 | .0138 | .0127 |
| 0.54 | .0368 | .0314 | .0272 | .0238 | .0211 | .0188 | .0170 | .0154 | .0141 | .0130 |
| 0.55 | .0375 | .0321 | .0277 | .0243 | .0215 | .0192 | .0173 | .0157 | .0144 | .0132 |
| 0.56 | .0383 | .0327 | .0283 | .0248 | .0219 | .0196 | .0177 | .0160 | .0147 | .0135 |
| 0.57 | .0390 | .0334 | .0289 | .0253 | .0224 | .0200 | .0180 | .0164 | .0150 | .0138 |
| 0.58 | .0399 | .0341 | .0295 | .0258 | .0229 | .0204 | .0184 | .0167 | .0153 | .0141 |
| 0.59 | .0407 | .0348 | .0301 | .0264 | .0234 | .0209 | .0188 | .0171 | .0157 | .0144 |
| 0.60 | .0417 | .0356 | .0308 | .0270 | .0239 | .0214 | .0193 | .0175 | .0160 | .0147 |

TIME BETWEEN MEASUREMENTS = 5 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0090 | .0080 | .0071 | .0064 | .0058 | .0053 | .0049 | .0045 | .0042 | .0039 |
| 0.41 | .0091 | .0081 | .0072 | .0065 | .0059 | .0054 | .0050 | .0046 | .0042 | .0039 |
| 0.42 | .0093 | .0082 | .0074 | .0066 | .0060 | .0055 | .0050 | .0046 | .0043 | .0040 |
| 0.43 | .0094 | .0083 | .0075 | .0067 | .0061 | .0056 | .0051 | .0047 | .0044 | .0040 |
| 0.44 | .0096 | .0085 | .0076 | .0069 | .0062 | .0057 | .0052 | .0048 | .0044 | .0041 |
| 0.45 | .0097 | .0086 | .0077 | .0070 | .0063 | .0058 | .0053 | .0049 | .0045 | .0042 |
| 0.46 | .0099 | .0088 | .0079 | .0071 | .0064 | .0059 | .0054 | .0050 | .0046 | .0042 |
| 0.47 | .0100 | .0089 | .0080 | .0072 | .0065 | .0060 | .0055 | .0050 | .0047 | .0043 |
| 0.48 | .0102 | .0091 | .0081 | .0073 | .0067 | .0061 | .0056 | .0051 | .0047 | .0044 |
| 0.49 | .0104 | .0092 | .0083 | .0075 | .0068 | .0062 | .0057 | .0052 | .0048 | .0045 |
| 0.50 | .0106 | .0094 | .0084 | .0076 | .0069 | .0063 | .0058 | .0053 | .0049 | .0046 |
| 0.51 | .0108 | .0096 | .0086 | .0077 | .0070 | .0064 | .0059 | .0054 | .0050 | .0046 |
| 0.52 | .0110 | .0097 | .0087 | .0079 | .0071 | .0065 | .0060 | .0055 | .0051 | .0047 |
| 0.53 | .0112 | .0099 | .0089 | .0080 | .0073 | .0066 | .0061 | .0056 | .0052 | .0048 |
| 0.54 | .0114 | .0101 | .0091 | .0082 | .0074 | .0068 | .0062 | .0057 | .0053 | .0049 |
| 0.55 | .0116 | .0103 | .0092 | .0083 | .0076 | .0069 | .0063 | .0058 | .0054 | .0050 |
| 0.56 | .0119 | .0105 | .0094 | .0085 | .0077 | .0071 | .0065 | .0060 | .0055 | .0051 |
| 0.57 | .0121 | .0108 | .0096 | .0087 | .0079 | .0072 | .0066 | .0061 | .0056 | .0052 |
| 0.58 | .0124 | .0110 | .0099 | .0089 | .0081 | .0074 | .0068 | .0062 | .0058 | .0053 |
| 0.59 | .0127 | .0112 | .0101 | .0091 | .0083 | .0075 | .0069 | .0064 | .0059 | .0055 |
| 0.60 | .0129 | .0115 | .0103 | .0093 | .0085 | .0077 | .0071 | .0065 | .0060 | .0056 |

TIME BETWEEN MEASUREMENTS = 5 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0030 | .0024 | .0020 | .0017 | .0015 | .0013 | .0012 | .0011 | .0010 | .0009 |
| 0.41 | .0030 | .0024 | .0020 | .0017 | .0015 | .0014 | .0012 | .0011 | .0010 | .0009 |
| 0.42 | .0030 | .0024 | .0020 | .0018 | .0015 | .0014 | .0012 | .0011 | .0010 | .0009 |
| 0.43 | .0031 | .0025 | .0021 | .0018 | .0016 | .0014 | .0013 | .0011 | .0010 | .0010 |
| 0.44 | .0031 | .0025 | .0021 | .0018 | .0016 | .0014 | .0013 | .0012 | .0011 | .0010 |
| 0.45 | .0032 | .0026 | .0021 | .0018 | .0016 | .0014 | .0013 | .0012 | .0011 | .0010 |
| 0.46 | .0033 | .0026 | .0022 | .0019 | .0016 | .0015 | .0013 | .0012 | .0011 | .0010 |
| 0.47 | .0033 | .0027 | .0022 | .0019 | .0017 | .0015 | .0013 | .0012 | .0011 | .0010 |
| 0.48 | .0034 | .0027 | .0023 | .0019 | .0017 | .0015 | .0014 | .0012 | .0011 | .0010 |
| 0.49 | .0034 | .0028 | .0023 | .0020 | .0017 | .0015 | .0014 | .0013 | .0012 | .0011 |
| 0.50 | .0035 | .0028 | .0023 | .0020 | .0018 | .0016 | .0014 | .0013 | .0012 | .0011 |
| 0.51 | .0036 | .0029 | .0024 | .0020 | .0018 | .0016 | .0014 | .0013 | .0012 | .0011 |
| 0.52 | .0036 | .0029 | .0024 | .0021 | .0018 | .0016 | .0015 | .0013 | .0012 | .0011 |
| 0.53 | .0037 | .0030 | .0025 | .0021 | .0019 | .0017 | .0015 | .0014 | .0012 | .0011 |
| 0.54 | .0038 | .0030 | .0025 | .0022 | .0019 | .0017 | .0015 | .0014 | .0013 | .0012 |
| 0.55 | .0038 | .0031 | .0026 | .0022 | .0019 | .0017 | .0016 | .0014 | .0013 | .0012 |
| 0.56 | .0039 | .0031 | .0028 | .0023 | .0020 | .0018 | .0016 | .0014 | .0013 | .0012 |
| 0.57 | .0040 | .0032 | .0027 | .0023 | .0020 | .0018 | .0016 | .0015 | .0013 | .0012 |
| 0.58 | .0041 | .0033 | .0027 | .0024 | .0021 | .0018 | .0017 | .0015 | .0014 | .0013 |
| 0.59 | .0042 | .0034 | .0028 | .0024 | .0021 | .0019 | .0017 | .0015 | .0014 | .0013 |
| 0.60 | .0043 | .0034 | .0029 | .0025 | .0022 | .0019 | .0017 | .0016 | .0014 | .0013 |

TIME BETWEEN MEASUREMENTS = 6 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .5013 | .3282 | .2428 | .1927 | .1596 | .1350 | .1184 | .1047 | .0938 | .0848 |
| 0.41 | .5050 | .3315 | .2456 | .1950 | .1616 | .1378 | .1200 | .1061 | .0951 | .0860 |
| 0.42 | .5087 | .3349 | .2484 | .1975 | .1637 | .1397 | .1216 | .1076 | .0964 | .0873 |
| 0.43 | .5125 | .3383 | .2513 | .1999 | .1659 | .1415 | .1233 | .1091 | .0978 | .0885 |
| 0.44 | .5163 | .3417 | .2543 | .2025 | .1681 | .1435 | .1250 | .1107 | .0992 | .0898 |
| 0.45 | .5202 | .3453 | .2573 | .2051 | .1704 | .1455 | .1268 | .1123 | .1007 | .0912 |
| 0.46 | .5242 | .3489 | .2604 | .2078 | .1727 | .1476 | .1287 | .1139 | .1022 | .0925 |
| 0.47 | .5282 | .3526 | .2637 | .2106 | .1751 | .1497 | .1306 | .1157 | .1037 | .0940 |
| 0.48 | .5323 | .3564 | .2670 | .2134 | .1776 | .1519 | .1325 | .1174 | .1054 | .0955 |
| 0.49 | .5365 | .3603 | .2704 | .2164 | .1802 | .1542 | .1346 | .1193 | .1071 | .0970 |
| 0.50 | .5408 | .3644 | .2739 | .2195 | .1829 | .1566 | .1367 | .1212 | .1088 | .0986 |
| 0.51 | .5451 | .3686 | .2776 | .2226 | .1857 | .1590 | .1389 | .1232 | .1106 | .1003 |
| 0.52 | .5496 | .3729 | .2814 | .2259 | .1886 | .1616 | .1412 | .1253 | .1125 | .1020 |
| 0.53 | .5542 | .3773 | .2853 | .2294 | .1916 | .1643 | .1436 | .1275 | .1145 | .1038 |
| 0.54 | .5589 | .3819 | .2894 | .2329 | .1947 | .1671 | .1461 | .1297 | .1166 | .1057 |
| 0.55 | .5637 | .3866 | .2936 | .2367 | .1980 | .1700 | .1487 | .1321 | .1188 | .1077 |
| 0.56 | .5687 | .3918 | .2980 | .2405 | .2014 | .1730 | .1515 | .1346 | .1210 | .1098 |
| 0.57 | .5738 | .3967 | .3026 | .2446 | .2050 | .1762 | .1544 | .1372 | .1234 | .1120 |
| 0.58 | .5790 | .4020 | .3074 | .2488 | .2088 | .1798 | .1574 | .1400 | .1259 | .1144 |
| 0.59 | .5844 | .4075 | .3124 | .2533 | .2127 | .1831 | .1606 | .1429 | .1286 | .1168 |
| 0.60 | .5899 | .4132 | .3176 | .2579 | .2168 | .1868 | .1639 | .1459 | .1314 | .1184 |

TIME BETWEEN MEASUREMENTS = 6 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0774 | .0710 | .0656 | .0606 | .0555 | .0527 | .0493 | .0482 | .0434 | .0409 |
| 0.41 | .0785 | .0721 | .0665 | .0616 | .0573 | .0535 | .0500 | .0469 | .0441 | .0415 |
| 0.42 | .0796 | .0731 | .0675 | .0625 | .0582 | .0543 | .0508 | .0476 | .0447 | .0421 |
| 0.43 | .0808 | .0742 | .0685 | .0635 | .0590 | .0551 | .0515 | .0483 | .0454 | .0427 |
| 0.44 | .0820 | .0753 | .0695 | .0644 | .0599 | .0559 | .0523 | .0490 | .0461 | .0434 |
| 0.45 | .0832 | .0764 | .0706 | .0654 | .0609 | .0568 | .0531 | .0498 | .0468 | .0440 |
| 0.46 | .0845 | .0776 | .0717 | .0664 | .0618 | .0577 | .0540 | .0508 | .0475 | .0447 |
| 0.47 | .0858 | .0788 | .0728 | .0675 | .0628 | .0586 | .0548 | .0514 | .0483 | .0455 |
| 0.48 | .0872 | .0801 | .0740 | .0686 | .0639 | .0596 | .0557 | .0522 | .0491 | .0462 |
| 0.49 | .0886 | .0814 | .0752 | .0697 | .0649 | .0605 | .0567 | .0531 | .0499 | .0470 |
| 0.50 | .0901 | .0828 | .0765 | .0709 | .0660 | .0616 | .0576 | .0540 | .0508 | .0478 |
| 0.51 | .0916 | .0842 | .0778 | .0721 | .0671 | .0627 | .0586 | .0550 | .0517 | .0487 |
| 0.52 | .0932 | .0857 | .0792 | .0734 | .0683 | .0639 | .0597 | .0560 | .0526 | .0495 |
| 0.53 | .0949 | .0872 | .0806 | .0748 | .0696 | .0650 | .0608 | .0570 | .0538 | .0505 |
| 0.54 | .0967 | .0889 | .0821 | .0762 | .0709 | .0662 | .0620 | .0581 | .0546 | .0514 |
| 0.55 | .0985 | .0906 | .0837 | .0777 | .0723 | .0675 | .0632 | .0593 | .0557 | .0525 |
| 0.56 | .1004 | .0924 | .0854 | .0792 | .0738 | .0689 | .0645 | .0605 | .0569 | .0535 |
| 0.57 | .1025 | .0943 | .0871 | .0809 | .0753 | .0703 | .0658 | .0618 | .0580 | .0547 |
| 0.58 | .1046 | .0962 | .0890 | .0826 | .0769 | .0718 | .0672 | .0631 | .0593 | .0559 |
| 0.59 | .1068 | .0983 | .0909 | .0844 | .0786 | .0734 | .0687 | .0645 | .0606 | .0571 |
| 0.60 | .1092 | .1005 | .0930 | .0863 | .0804 | .0751 | .0703 | .0660 | .0620 | .0584 |

TIME BETWEEN MEASUREMENTS = 6 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0344 | .0294 | .0254 | .0222 | .0197 | .0176 | .0158 | .0144 | .0132 | .0121 |
| 0.41 | .0349 | .0298 | .0258 | .0226 | .0200 | .0178 | .0161 | .0146 | .0134 | .0123 |
| 0.42 | .0354 | .0303 | .0262 | .0229 | .0203 | .0181 | .0163 | .0148 | .0136 | .0125 |
| 0.43 | .0360 | .0307 | .0266 | .0233 | .0206 | .0184 | .0166 | .0151 | .0138 | .0127 |
| 0.44 | .0365 | .0312 | .0270 | .0236 | .0209 | .0187 | .0168 | .0153 | .0140 | .0129 |
| 0.45 | .0371 | .0317 | .0274 | .0240 | .0213 | .0190 | .0171 | .0155 | .0142 | .0131 |
| 0.46 | .0377 | .0322 | .0279 | .0244 | .0216 | .0193 | .0174 | .0158 | .0144 | .0133 |
| 0.47 | .0383 | .0327 | .0283 | .0248 | .0220 | .0196 | .0177 | .0161 | .0147 | .0135 |
| 0.48 | .0389 | .0333 | .0288 | .0252 | .0223 | .0200 | .0180 | .0163 | .0149 | .0137 |
| 0.49 | .0396 | .0338 | .0293 | .0257 | .0227 | .0203 | .0183 | .0166 | .0152 | .0140 |
| 0.50 | .0403 | .0344 | .0298 | .0261 | .0231 | .0207 | .0186 | .0169 | .0155 | .0142 |
| 0.51 | .0410 | .0351 | .0304 | .0266 | .0235 | .0210 | .0190 | .0172 | .0158 | .0145 |
| 0.52 | .0418 | .0357 | .0309 | .0271 | .0240 | .0214 | .0193 | .0176 | .0161 | .0148 |
| 0.53 | .0426 | .0364 | .0315 | .0276 | .0244 | .0219 | .0197 | .0179 | .0164 | .0151 |
| 0.54 | .0434 | .0371 | .0321 | .0281 | .0249 | .0223 | .0201 | .0183 | .0167 | .0154 |
| 0.55 | .0442 | .0378 | .0328 | .0287 | .0254 | .0227 | .0205 | .0186 | .0170 | .0157 |
| 0.56 | .0452 | .0386 | .0335 | .0293 | .0260 | .0232 | .0210 | .0190 | .0174 | .0160 |
| 0.57 | .0461 | .0395 | .0342 | .0300 | .0265 | .0237 | .0214 | .0195 | .0178 | .0164 |
| 0.58 | .0471 | .0403 | .0349 | .0306 | .0271 | .0243 | .0219 | .0199 | .0182 | .0167 |
| 0.59 | .0482 | .0412 | .0357 | .0313 | .0278 | .0248 | .0224 | .0204 | .0186 | .0171 |
| 0.60 | .0493 | .0422 | .0366 | .0321 | .0284 | .0254 | .0230 | .0208 | .0191 | .0178 |

TIME BETWEEN MEASUREMENTS = 6 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0108 | .0094 | .0085 | .0076 | .0059 | .0063 | .0058 | .0053 | .0049 | .0046 |
| 0.41 | .0108 | .0096 | .0086 | .0077 | .0070 | .0064 | .0059 | .0054 | .0050 | .0046 |
| 0.42 | .0110 | .0097 | .0087 | .0079 | .0071 | .0065 | .0060 | .0055 | .0051 | .0047 |
| 0.43 | .0111 | .0099 | .0089 | .0080 | .0073 | .0066 | .0061 | .0056 | .0052 | .0048 |
| 0.44 | .0113 | .0100 | .0090 | .0081 | .0074 | .0067 | .0062 | .0057 | .0052 | .0049 |
| 0.45 | .0115 | .0102 | .0091 | .0083 | .0075 | .0068 | .0063 | .0058 | .0053 | .0049 |
| 0.46 | .0117 | .0104 | .0093 | .0084 | .0076 | .0070 | .0064 | .0059 | .0054 | .0050 |
| 0.47 | .0119 | .0105 | .0095 | .0085 | .0077 | .0071 | .0065 | .0060 | .0055 | .0051 |
| 0.48 | .0121 | .0107 | .0096 | .0087 | .0079 | .0072 | .0066 | .0061 | .0056 | .0052 |
| 0.49 | .0123 | .0108 | .0098 | .0089 | .0080 | .0073 | .0067 | .0062 | .0057 | .0053 |
| 0.50 | .0125 | .0111 | .0100 | .0090 | .0082 | .0075 | .0068 | .0063 | .0058 | .0054 |
| 0.51 | .0127 | .0113 | .0101 | .0092 | .0083 | .0076 | .0070 | .0064 | .0059 | .0055 |
| 0.52 | .0130 | .0115 | .0103 | .0093 | .0085 | .0077 | .0071 | .0065 | .0060 | .0056 |
| 0.53 | .0132 | .0118 | .0105 | .0095 | .0086 | .0079 | .0072 | .0067 | .0062 | .0057 |
| 0.54 | .0135 | .0120 | .0108 | .0097 | .0088 | .0081 | .0074 | .0068 | .0063 | .0058 |
| 0.55 | .0138 | .0123 | .0110 | .0099 | .0090 | .0082 | .0075 | .0069 | .0064 | .0060 |
| 0.56 | .0141 | .0125 | .0112 | .0101 | .0092 | .0084 | .0077 | .0071 | .0066 | .0061 |
| 0.57 | .0144 | .0128 | .0115 | .0104 | .0094 | .0086 | .0079 | .0073 | .0067 | .0062 |
| 0.58 | .0147 | .0131 | .0117 | .0106 | .0096 | .0088 | .0081 | .0074 | .0069 | .0064 |
| 0.58 | .0151 | .0134 | .0120 | .0109 | .0099 | .0090 | .0083 | .0076 | .0070 | .0065 |
| 0.60 | .0154 | .0137 | .0123 | .0111 | .0101 | .0092 | .0085 | .0078 | .0072 | .0067 |

TIME BETWEEN MEASUREMENTS = 8 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0035 | .0028 | .0024 | .0020 | .0018 | .0016 | .0014 | .0013 | .0012 | .0011 |
| 0.41 | .0036 | .0029 | .0024 | .0021 | .0018 | .0016 | .0014 | .0013 | .0012 | .0011 |
| 0.42 | .0036 | .0029 | .0024 | .0021 | .0018 | .0016 | .0015 | .0013 | .0012 | .0011 |
| 0.43 | .0037 | .0029 | .0025 | .0021 | .0019 | .0017 | .0015 | .0014 | .0012 | .0011 |
| 0.44 | .0037 | .0030 | .0025 | .0022 | .0019 | .0017 | .0015 | .0014 | .0013 | .0011 |
| 0.45 | .0038 | .0030 | .0025 | .0022 | .0019 | .0017 | .0015 | .0014 | .0013 | .0012 |
| 0.46 | .0039 | .0031 | .0026 | .0022 | .0020 | .0017 | .0016 | .0014 | .0013 | .0012 |
| 0.47 | .0039 | .0032 | .0026 | .0023 | .0020 | .0018 | .0016 | .0014 | .0013 | .0012 |
| 0.48 | .0040 | .0032 | .0027 | .0023 | .0020 | .0018 | .0016 | .0015 | .0013 | .0012 |
| 0.49 | .0041 | .0033 | .0027 | .0023 | .0021 | .0018 | .0017 | .0015 | .0014 | .0013 |
| 0.50 | .0041 | .0033 | .0028 | .0024 | .0021 | .0019 | .0017 | .0015 | .0014 | .0013 |
| 0.51 | .0042 | .0034 | .0028 | .0024 | .0021 | .0019 | .0017 | .0016 | .0014 | .0013 |
| 0.52 | .0043 | .0035 | .0029 | .0025 | .0022 | .0019 | .0018 | .0016 | .0014 | .0013 |
| 0.53 | .0044 | .0035 | .0029 | .0025 | .0022 | .0020 | .0018 | .0016 | .0015 | .0013 |
| 0.54 | .0045 | .0036 | .0030 | .0026 | .0023 | .0020 | .0018 | .0017 | .0015 | .0014 |
| 0.55 | .0046 | .0037 | .0031 | .0026 | .0023 | .0021 | .0019 | .0017 | .0015 | .0014 |
| 0.56 | .0047 | .0038 | .0031 | .0027 | .0024 | .0021 | .0019 | .0017 | .0016 | .0014 |
| 0.57 | .0048 | .0038 | .0032 | .0028 | .0024 | .0022 | .0019 | .0018 | .0016 | .0015 |
| 0.58 | .0049 | .0039 | .0033 | .0028 | .0025 | .0022 | .0020 | .0018 | .0016 | .0015 |
| 0.59 | .0050 | .0040 | .0034 | .0029 | .0025 | .0023 | .0020 | .0019 | .0017 | .0015 |
| 0.60 | .0051 | .0041 | .0034 | .0030 | .0026 | .0023 | .0021 | .0019 | .0017 | .0016 |

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TIME BETWEEN MEASUREMENTS = 8 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .5652 | .3881 | .2949 | .2378 | .1990 | .1709 | .1485 | .1328 | .1194 | .1084 |
| 0.41 | .5687 | .3916 | .2981 | .2406 | .2015 | .1731 | .1515 | .1346 | .1211 | .1099 |
| 0.42 | .5724 | .3953 | .3013 | .2435 | .2040 | .1753 | .1536 | .1365 | .1228 | .1114 |
| 0.43 | .5761 | .3990 | .3047 | .2464 | .2066 | .1777 | .1557 | .1384 | .1245 | .1130 |
| 0.44 | .5798 | .4028 | .3082 | .2485 | .2094 | .1801 | .1579 | .1404 | .1263 | .1147 |
| 0.45 | .5837 | .4068 | .3118 | .2527 | .2122 | .1826 | .1602 | .1425 | .1282 | .1165 |
| 0.46 | .5877 | .4109 | .3155 | .2560 | .2151 | .1853 | .1625 | .1446 | .1302 | .1183 |
| 0.47 | .5917 | .4151 | .3193 | .2594 | .2182 | .1880 | .1650 | .1469 | .1323 | .1202 |
| 0.48 | .5958 | .4194 | .3233 | .2629 | .2213 | .1908 | .1676 | .1492 | .1344 | .1222 |
| 0.49 | .6001 | .4239 | .3274 | .2666 | .2246 | .1938 | .1702 | .1517 | .1366 | .1242 |
| 0.50 | .6044 | .4285 | .3316 | .2704 | .2280 | .1968 | .1730 | .1542 | .1390 | .1264 |
| 0.51 | .6089 | .4333 | .3361 | .2744 | .2316 | .2001 | .1759 | .1569 | .1414 | .1286 |
| 0.52 | .6135 | .4382 | .3407 | .2785 | .2353 | .2034 | .1790 | .1596 | .1440 | .1310 |
| 0.53 | .6182 | .4433 | .3454 | .2828 | .2392 | .2069 | .1821 | .1625 | .1466 | .1334 |
| 0.54 | .6230 | .4486 | .3504 | .2873 | .2432 | .2105 | .1855 | .1656 | .1494 | .1360 |
| 0.55 | .6280 | .4541 | .3555 | .2920 | .2474 | .2144 | .1889 | .1688 | .1524 | .1388 |
| 0.56 | .6331 | .4598 | .3609 | .2969 | .2518 | .2184 | .1926 | .1721 | .1555 | .1418 |
| 0.57 | .6384 | .4657 | .3665 | .3020 | .2564 | .2226 | .1964 | .1756 | .1587 | .1446 |
| 0.58 | .6438 | .4718 | .3723 | .3073 | .2613 | .2270 | .2004 | .1793 | .1621 | .1478 |
| 0.59 | .6494 | .4782 | .3784 | .3129 | .2663 | .2316 | .2047 | .1832 | .1657 | .1511 |
| 0.60 | .6551 | .4848 | .3847 | .3187 | .2716 | .2364 | .2091 | .1873 | .1695 | .1546 |

TIME BETWEEN MEASUREMENTS = 8 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0891 | .0811 | .0842 | .0781 | .0727 | .0679 | .0636 | .0698 | .0560 | .0628 |
| 0.41 | .1004 | .0924 | .0854 | .0793 | .0738 | .0689 | .0645 | .0605 | .0569 | .0535 |
| 0.42 | .1019 | .0837 | .0966 | .0804 | .0749 | .0699 | .0654 | .0614 | .0577 | .0543 |
| 0.43 | .1034 | .0951 | .0879 | .0816 | .0760 | .0710 | .0664 | .0623 | .0586 | .0552 |
| 0.44 | .1049 | .0966 | .0893 | .0829 | .0772 | .0721 | .0675 | .0633 | .0695 | .0660 |
| 0.45 | .1066 | .0981 | .0907 | .0842 | .0784 | .0732 | .0685 | .0643 | .0605 | .0569 |
| 0.46 | .1082 | .0996 | .0921 | .0855 | .0797 | .0744 | .0697 | .0654 | .0615 | .0679 |
| 0.47 | .1100 | .1013 | .0936 | .0869 | .0810 | .0757 | .0708 | .0665 | .0625 | .0589 |
| 0.48 | .1118 | .1030 | .0952 | .0884 | .0824 | .0769 | .0721 | .0676 | .0636 | .0699 |
| 0.49 | .1137 | .1047 | .0969 | .0900 | .0839 | .0783 | .0733 | .0688 | .0647 | .0610 |
| 0.50 | .1157 | .1066 | .0988 | .0918 | .0853 | .0797 | .0747 | .0701 | .0659 | .0621 |
| 0.51 | .1178 | .1085 | .1004 | .0933 | .0869 | .0812 | .0761 | .0714 | .0671 | .0633 |
| 0.52 | .1200 | .1105 | .1023 | .0950 | .0886 | .0828 | .0775 | .0728 | .0684 | .0645 |
| 0.53 | .1223 | .1127 | .1043 | .0969 | .0903 | .0844 | .0791 | .0742 | .0698 | .0658 |
| 0.54 | .1247 | .1149 | .1064 | .0989 | .0921 | .0861 | .0807 | .0757 | .0712 | .0671 |
| 0.55 | .1272 | .1173 | .1086 | .1009 | .0941 | .0879 | .0824 | .0773 | .0728 | .0686 |
| 0.56 | .1299 | .1197 | .1109 | .1031 | .0961 | .0898 | .0842 | .0790 | .0743 | .0701 |
| 0.57 | .1326 | .1223 | .1133 | .1053 | .0982 | .0918 | .0860 | .0808 | .0760 | .0717 |
| 0.58 | .1358 | .1251 | .1159 | .1077 | .1005 | .0939 | .0880 | .0827 | .0778 | .0733 |
| 0.59 | .1387 | .1279 | .1186 | .1102 | .1028 | .0962 | .0901 | .0846 | .0797 | .0751 |
| 0.60 | .1419 | .1310 | .1214 | .1129 | .1053 | .0985 | .0923 | .0867 | .0816 | .0770 |

TIME BETWEEN MEASUREMENTS = 8 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0445 | .0381 | .0330 | .0289 | .0256 | .0229 | .0206 | .0188 | .0172 | .0158 |
| 0.41 | .0452 | .0386 | .0335 | .0293 | .0260 | .0232 | .0210 | .0190 | .0174 | .0160 |
| 0.42 | .0459 | .0392 | .0340 | .0298 | .0264 | .0236 | .0213 | .0193 | .0177 | .0163 |
| 0.43 | .0466 | .0398 | .0345 | .0302 | .0268 | .0240 | .0216 | .0196 | .0180 | .0165 |
| 0.44 | .0473 | .0405 | .0351 | .0307 | .0272 | .0244 | .0220 | .0200 | .0183 | .0168 |
| 0.45 | .0481 | .0411 | .0356 | .0312 | .0277 | .0248 | .0223 | .0203 | .0186 | .0171 |
| 0.46 | .0489 | .0418 | .0362 | .0318 | .0282 | .0252 | .0227 | .0207 | .0189 | .0174 |
| 0.47 | .0497 | .0425 | .0369 | .0323 | .0286 | .0256 | .0231 | .0210 | .0192 | .0177 |
| 0.48 | .0506 | .0433 | .0375 | .0329 | .0292 | .0261 | .0235 | .0214 | .0196 | .0180 |
| 0.49 | .0515 | .0441 | .0382 | .0335 | .0297 | .0266 | .0240 | .0218 | .0200 | .0184 |
| 0.50 | .0524 | .0449 | .0389 | .0341 | .0303 | .0271 | .0244 | .0222 | .0203 | .0187 |
| 0.51 | .0534 | .0458 | .0397 | .0348 | .0309 | .0276 | .0249 | .0227 | .0207 | .0191 |
| 0.52 | .0545 | .0467 | .0405 | .0355 | .0315 | .0282 | .0254 | .0231 | .0212 | .0195 |
| 0.53 | .0556 | .0476 | .0413 | .0362 | .0321 | .0288 | .0260 | .0236 | .0216 | .0199 |
| 0.54 | .0567 | .0486 | .0422 | .0370 | .0328 | .0294 | .0265 | .0241 | .0221 | .0203 |
| 0.55 | .0580 | .0497 | .0431 | .0378 | .0336 | .0300 | .0271 | .0247 | .0226 | .0208 |
| 0.56 | .0592 | .0508 | .0441 | .0387 | .0343 | .0307 | .0278 | .0252 | .0231 | .0213 |
| 0.57 | .0606 | .0519 | .0451 | .0396 | .0351 | .0315 | .0284 | .0258 | .0237 | .0218 |
| 0.58 | .0620 | .0532 | .0462 | .0406 | .0360 | .0322 | .0291 | .0265 | .0243 | .0223 |
| 0.59 | .0635 | .0545 | .0473 | .0416 | .0369 | .0330 | .0298 | .0272 | .0249 | .0229 |
| 0.60 | .0651 | .0559 | .0485 | .0426 | .0378 | .0339 | .0306 | .0279 | .0255 | .0235 |

TIME BETWEEN MEASUREMENTS = 8 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0139 | .0123 | .0111 | .0100 | .0091 | .0083 | .0076 | .0070 | .0065 | .0060 |
| 0.41 | .0141 | .0125 | .0112 | .0101 | .0092 | .0084 | .0077 | .0071 | .0066 | .0061 |
| 0.42 | .0143 | .0127 | .0114 | .0103 | .0094 | .0085 | .0078 | .0072 | .0067 | .0062 |
| 0.43 | .0145 | .0129 | .0116 | .0105 | .0095 | .0087 | .0080 | .0073 | .0068 | .0063 |
| 0.44 | .0148 | .0131 | .0118 | .0106 | .0097 | .0088 | .0081 | .0074 | .0069 | .0064 |
| 0.45 | .0150 | .0134 | .0120 | .0108 | .0098 | .0090 | .0082 | .0076 | .0070 | .0065 |
| 0.46 | .0153 | .0136 | .0122 | .0110 | .0100 | .0091 | .0084 | .0077 | .0071 | .0066 |
| 0.47 | .0156 | .0138 | .0124 | .0112 | .0102 | .0093 | .0085 | .0079 | .0073 | .0067 |
| 0.48 | .0159 | .0141 | .0126 | .0114 | .0104 | .0095 | .0087 | .0080 | .0074 | .0069 |
| 0.49 | .0162 | .0144 | .0129 | .0116 | .0106 | .0096 | .0088 | .0082 | .0075 | .0070 |
| 0.50 | .0165 | .0146 | .0131 | .0119 | .0108 | .0098 | .0090 | .0083 | .0077 | .0071 |
| 0.51 | .0168 | .0149 | .0134 | .0121 | .0110 | .0100 | .0092 | .0085 | .0078 | .0073 |
| 0.52 | .0171 | .0152 | .0137 | .0124 | .0112 | .0102 | .0094 | .0087 | .0080 | .0074 |
| 0.53 | .0175 | .0156 | .0140 | .0126 | .0115 | .0105 | .0096 | .0088 | .0082 | .0076 |
| 0.54 | .0179 | .0159 | .0143 | .0129 | .0117 | .0107 | .0098 | .0090 | .0084 | .0078 |
| 0.55 | .0183 | .0163 | .0146 | .0132 | .0120 | .0109 | .0100 | .0093 | .0086 | .0079 |
| 0.56 | .0187 | .0167 | .0149 | .0135 | .0123 | .0112 | .0103 | .0095 | .0088 | .0081 |
| 0.57 | .0192 | .0171 | .0153 | .0138 | .0126 | .0115 | .0105 | .0097 | .0090 | .0083 |
| 0.58 | .0197 | .0175 | .0157 | .0142 | .0129 | .0118 | .0108 | .0099 | .0092 | .0085 |
| 0.59 | .0202 | .0179 | .0161 | .0146 | .0132 | .0121 | .0111 | .0102 | .0094 | .0088 |
| 0.60 | .0207 | .0184 | .0165 | .0149 | .0136 | .0124 | .0114 | .0105 | .0097 | .0090 |

TIME BETWEEN MEASUREMENTS = 8 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.40 | .0046 | .0037 | .0031 | .0027 | .0023 | .0021 | .0019 | .0017 | .0015 | .0014 |
| 0.41 | .0047 | .0038 | .0031 | .0027 | .0024 | .0021 | .0019 | .0017 | .0016 | .0014 |
| 0.42 | .0047 | .0038 | .0032 | .0027 | .0024 | .0021 | .0019 | .0018 | .0016 | .0015 |
| 0.43 | .0048 | .0039 | .0032 | .0028 | .0024 | .0022 | .0020 | .0018 | .0016 | .0015 |
| 0.44 | .0049 | .0039 | .0033 | .0028 | .0025 | .0022 | .0020 | .0018 | .0017 | .0015 |
| 0.45 | .0050 | .0040 | .0034 | .0029 | .0025 | .0023 | .0020 | .0018 | .0017 | .0015 |
| 0.46 | .0051 | .0041 | .0034 | .0029 | .0026 | .0023 | .0021 | .0019 | .0017 | .0016 |
| 0.47 | .0052 | .0042 | .0035 | .0030 | .0026 | .0023 | .0021 | .0019 | .0017 | .0016 |
| 0.48 | .0053 | .0042 | .0035 | .0030 | .0027 | .0024 | .0021 | .0019 | .0018 | .0016 |
| 0.49 | .0054 | .0043 | .0036 | .0031 | .0027 | .0024 | .0022 | .0020 | .0018 | .0017 |
| 0.50 | .0055 | .0044 | .0037 | .0032 | .0028 | .0025 | .0022 | .0020 | .0018 | .0017 |
| 0.51 | .0056 | .0045 | .0038 | .0032 | .0028 | .0025 | .0023 | .0021 | .0019 | .0017 |
| 0.52 | .0057 | .0046 | .0038 | .0033 | .0029 | .0026 | .0023 | .0021 | .0019 | .0018 |
| 0.53 | .0058 | .0047 | .0039 | .0034 | .0030 | .0026 | .0024 | .0022 | .0020 | .0018 |
| 0.54 | .0060 | .0048 | .0040 | .0034 | .0030 | .0027 | .0024 | .0022 | .0020 | .0018 |
| 0.55 | .0061 | .0049 | .0041 | .0035 | .0031 | .0028 | .0025 | .0023 | .0021 | .0019 |
| 0.56 | .0062 | .0050 | .0042 | .0036 | .0032 | .0028 | .0026 | .0023 | .0021 | .0019 |
| 0.57 | .0064 | .0051 | .0043 | .0037 | .0033 | .0029 | .0026 | .0024 | .0022 | .0020 |
| 0.58 | .0068 | .0053 | .0044 | .0038 | .0033 | .0030 | .0027 | .0024 | .0022 | .0020 |
| 0.59 | .0067 | .0054 | .0045 | .0039 | .0034 | .0031 | .0028 | .0025 | .0023 | .0021 |
| 0.60 | .0069 | .0056 | .0047 | .0040 | .0035 | .0031 | .0028 | .0026 | .0023 | .0021 |

TIME BETWEEN MEASUREMENTS = 10 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .5814 | .4044 | .3056 | .2508 | .2105 | .1811 | .1588 | .1413 | .1271 | .1154 |
| 0.31 | .5844 | .4075 | .3124 | .2533 | .2127 | .1831 | .1606 | .1429 | .1286 | .1168 |
| 0.32 | .5875 | .4107 | .3153 | .2556 | .2150 | .1851 | .1624 | .1445 | .1301 | .1182 |
| 0.33 | .5906 | .4139 | .3182 | .2584 | .2173 | .1872 | .1643 | .1463 | .1317 | .1196 |
| 0.34 | .5937 | .4171 | .3212 | .2611 | .2197 | .1894 | .1662 | .1480 | .1333 | .1211 |
| 0.35 | .5969 | .4205 | .3243 | .2638 | .2221 | .1915 | .1682 | .1498 | .1350 | .1227 |
| 0.36 | .6001 | .4239 | .3274 | .2666 | .2246 | .1938 | .1703 | .1517 | .1367 | .1242 |
| 0.37 | .6034 | .4274 | .3307 | .2695 | .2272 | .1961 | .1724 | .1536 | .1384 | .1259 |
| 0.38 | .6068 | .4310 | .3340 | .2725 | .2299 | .1986 | .1746 | .1556 | .1403 | .1276 |
| 0.39 | .6103 | .4347 | .3374 | .2756 | .2327 | .2010 | .1768 | .1577 | .1422 | .1293 |
| 0.40 | .6138 | .4385 | .3410 | .2788 | .2355 | .2036 | .1792 | .1598 | .1441 | .1311 |
| 0.41 | .6174 | .4425 | .3446 | .2821 | .2385 | .2063 | .1816 | .1620 | .1462 | .1330 |
| 0.42 | .6211 | .4465 | .3484 | .2855 | .2416 | .2091 | .1841 | .1644 | .1483 | .1350 |
| 0.43 | .6249 | .4507 | .3523 | .2891 | .2448 | .2120 | .1867 | .1668 | .1505 | .1370 |
| 0.44 | .6288 | .4549 | .3563 | .2927 | .2481 | .2150 | .1895 | .1693 | .1528 | .1392 |
| 0.45 | .6327 | .4594 | .3605 | .2965 | .2515 | .2181 | .1923 | .1719 | .1552 | .1414 |
| 0.46 | .6368 | .4639 | .3649 | .3004 | .2550 | .2213 | .1953 | .1748 | .1577 | .1437 |
| 0.47 | .6410 | .4686 | .3693 | .3045 | .2587 | .2247 | .1983 | .1774 | .1603 | .1461 |
| 0.48 | .6453 | .4735 | .3739 | .3089 | .2626 | .2282 | .2015 | .1803 | .1630 | .1486 |
| 0.49 | .6497 | .4785 | .3787 | .3131 | .2666 | .2318 | .2049 | .1834 | .1659 | .1513 |
| 0.50 | .6542 | .4837 | .3837 | .3177 | .2707 | .2356 | .2083 | .1868 | .1688 | .1540 |
| 0.51 | .6588 | .4890 | .3888 | .3224 | .2751 | .2395 | .2120 | .1899 | .1719 | .1569 |
| 0.52 | .6636 | .4945 | .3941 | .3274 | .2796 | .2437 | .2159 | .1934 | .1752 | .1599 |
| 0.53 | .6684 | .5002 | .3997 | .3325 | .2842 | .2480 | .2197 | .1971 | .1785 | .1630 |
| 0.54 | .6734 | .5061 | .4054 | .3378 | .2891 | .2524 | .2238 | .2009 | .1821 | .1663 |
| 0.55 | .6788 | .5122 | .4113 | .3433 | .2942 | .2571 | .2281 | .2049 | .1858 | .1697 |
| 0.56 | .6839 | .5184 | .4174 | .3490 | .2995 | .2620 | .2326 | .2090 | .1896 | .1733 |
| 0.57 | .6893 | .5249 | .4238 | .3550 | .3050 | .2671 | .2373 | .2134 | .1937 | .1771 |
| 0.58 | .6948 | .5318 | .4304 | .3612 | .3107 | .2724 | .2422 | .2180 | .1979 | .1810 |
| 0.59 | .7005 | .5384 | .4372 | .3676 | .3167 | .2779 | .2473 | .2227 | .2023 | .1852 |
| 0.60 | .7063 | .5455 | .4442 | .3742 | .3228 | .2836 | .2527 | .2277 | .2070 | .1895 |

TIME BETWEEN MEASUREMENTS = 10 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1056 | .0872 | .0698 | .0634 | .0777 | .0725 | .0679 | .0637 | .0599 | .0564 |
| 0.31 | .1069 | .0883 | .0909 | .0844 | .0786 | .0734 | .0688 | .0645 | .0606 | .0571 |
| 0.32 | .1092 | .0896 | .0921 | .0855 | .0796 | .0744 | .0696 | .0653 | .0614 | .0578 |
| 0.33 | .1085 | .1008 | .0932 | .0865 | .0806 | .0753 | .0705 | .0662 | .0622 | .0586 |
| 0.34 | .1108 | .1021 | .0944 | .0877 | .0817 | .0763 | .0714 | .0670 | .0630 | .0594 |
| 0.35 | .1123 | .1034 | .0956 | .0888 | .0827 | .0773 | .0724 | .0679 | .0639 | .0602 |
| 0.36 | .1137 | .1047 | .0969 | .0900 | .0838 | .0783 | .0733 | .0688 | .0647 | .0610 |
| 0.37 | .1153 | .1062 | .0982 | .0912 | .0850 | .0794 | .0744 | .0698 | .0656 | .0618 |
| 0.38 | .1168 | .1076 | .0996 | .0925 | .0862 | .0805 | .0754 | .0708 | .0666 | .0627 |
| 0.39 | .1185 | .1091 | .1010 | .0938 | .0874 | .0817 | .0765 | .0718 | .0675 | .0636 |
| 0.40 | .1201 | .1107 | .1024 | .0952 | .0887 | .0829 | .0776 | .0729 | .0685 | .0646 |
| 0.41 | .1219 | .1123 | .1040 | .0966 | .0900 | .0841 | .0788 | .0740 | .0696 | .0656 |
| 0.42 | .1237 | .1140 | .1055 | .0981 | .0914 | .0854 | .0800 | .0751 | .0707 | .0668 |
| 0.43 | .1256 | .1158 | .1072 | .0996 | .0929 | .0868 | .0813 | .0763 | .0718 | .0677 |
| 0.44 | .1276 | .1176 | .1089 | .1012 | .0944 | .0882 | .0826 | .0776 | .0730 | .0688 |
| 0.45 | .1297 | .1195 | .1107 | .1029 | .0959 | .0897 | .0840 | .0789 | .0742 | .0700 |
| 0.46 | .1318 | .1215 | .1126 | .1048 | .0976 | .0912 | .0855 | .0803 | .0755 | .0712 |
| 0.47 | .1340 | .1236 | .1145 | .1065 | .0993 | .0928 | .0870 | .0817 | .0769 | .0724 |
| 0.48 | .1364 | .1258 | .1166 | .1084 | .1011 | .0945 | .0886 | .0832 | .0783 | .0738 |
| 0.49 | .1388 | .1281 | .1187 | .1104 | .1029 | .0963 | .0902 | .0847 | .0797 | .0752 |
| 0.50 | .1414 | .1305 | .1209 | .1125 | .1049 | .0981 | .0920 | .0864 | .0813 | .0766 |
| 0.51 | .1440 | .1330 | .1232 | .1148 | .1069 | .1000 | .0938 | .0881 | .0829 | .0782 |
| 0.52 | .1468 | .1356 | .1257 | .1169 | .1091 | .1021 | .0957 | .0899 | .0846 | .0798 |
| 0.53 | .1498 | .1383 | .1282 | .1193 | .1113 | .1042 | .0977 | .0918 | .0864 | .0815 |
| 0.54 | .1528 | .1412 | .1309 | .1218 | .1137 | .1064 | .0998 | .0937 | .0883 | .0832 |
| 0.55 | .1560 | .1442 | .1337 | .1245 | .1162 | .1087 | .1020 | .0958 | .0902 | .0851 |
| 0.56 | .1594 | .1473 | .1367 | .1272 | .1188 | .1112 | .1043 | .0980 | .0923 | .0870 |
| 0.57 | .1629 | .1506 | .1397 | .1301 | .1215 | .1137 | .1067 | .1003 | .0944 | .0891 |
| 0.58 | .1666 | .1540 | .1430 | .1331 | .1243 | .1164 | .1092 | .1027 | .0967 | .0912 |
| 0.59 | .1704 | .1576 | .1464 | .1363 | .1273 | .1192 | .1119 | .1052 | .0991 | .0935 |
| 0.60 | .1745 | .1614 | .1499 | .1396 | .1305 | .1222 | .1147 | .1078 | .1016 | .0958 |

TIME BETWEEN MEASUREMENTS = 10 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0476 | .0407 | .0353 | .0309 | .0274 | .0245 | .0221 | .0201 | .0184 | .0169 |
| 0.31 | .0482 | .0413 | .0357 | .0313 | .0278 | .0248 | .0224 | .0204 | .0186 | .0171 |
| 0.32 | .0488 | .0418 | .0362 | .0317 | .0281 | .0252 | .0227 | .0206 | .0189 | .0174 |
| 0.33 | .0495 | .0423 | .0367 | .0322 | .0285 | .0255 | .0230 | .0209 | .0191 | .0176 |
| 0.34 | .0501 | .0429 | .0372 | .0326 | .0289 | .0259 | .0233 | .0212 | .0194 | .0179 |
| 0.35 | .0508 | .0435 | .0377 | .0331 | .0293 | .0262 | .0237 | .0215 | .0197 | .0181 |
| 0.36 | .0515 | .0441 | .0382 | .0335 | .0297 | .0266 | .0240 | .0218 | .0200 | .0184 |
| 0.37 | .0522 | .0447 | .0388 | .0340 | .0301 | .0270 | .0243 | .0221 | .0203 | .0186 |
| 0.38 | .0530 | .0454 | .0393 | .0345 | .0306 | .0274 | .0247 | .0225 | .0206 | .0189 |
| 0.39 | .0537 | .0460 | .0399 | .0350 | .0310 | .0278 | .0251 | .0228 | .0209 | .0192 |
| 0.40 | .0546 | .0467 | .0405 | .0356 | .0315 | .0282 | .0255 | .0232 | .0212 | .0195 |
| 0.41 | .0554 | .0475 | .0412 | .0361 | .0320 | .0287 | .0259 | .0235 | .0215 | .0198 |
| 0.42 | .0563 | .0482 | .0418 | .0367 | .0325 | .0291 | .0263 | .0239 | .0219 | .0202 |
| 0.43 | .0572 | .0490 | .0425 | .0373 | .0331 | .0296 | .0268 | .0243 | .0223 | .0205 |
| 0.44 | .0581 | .0498 | .0432 | .0380 | .0337 | .0301 | .0272 | .0248 | .0227 | .0209 |
| 0.45 | .0591 | .0507 | .0440 | .0386 | .0343 | .0307 | .0277 | .0252 | .0231 | .0212 |
| 0.46 | .0502 | .0516 | .0448 | .0393 | .0349 | .0312 | .0282 | .0257 | .0235 | .0216 |
| 0.47 | .0513 | .0525 | .0456 | .0400 | .0355 | .0318 | .0287 | .0262 | .0238 | .0220 |
| 0.48 | .0524 | .0535 | .0465 | .0408 | .0362 | .0324 | .0293 | .0267 | .0244 | .0225 |
| 0.49 | .0536 | .0545 | .0474 | .0416 | .0369 | .0331 | .0299 | .0272 | .0249 | .0229 |
| 0.50 | .0549 | .0556 | .0483 | .0424 | .0377 | .0338 | .0305 | .0278 | .0254 | .0234 |
| 0.51 | .0562 | .0568 | .0493 | .0433 | .0385 | .0345 | .0311 | .0283 | .0260 | .0239 |
| 0.52 | .0575 | .0580 | .0504 | .0442 | .0393 | .0352 | .0318 | .0290 | .0265 | .0244 |
| 0.53 | .0590 | .0592 | .0514 | .0452 | .0402 | .0360 | .0325 | .0296 | .0271 | .0250 |
| 0.54 | .0705 | .0605 | .0526 | .0462 | .0411 | .0368 | .0333 | .0303 | .0278 | .0256 |
| 0.55 | .0721 | .0619 | .0538 | .0473 | .0420 | .0377 | .0341 | .0310 | .0284 | .0262 |
| 0.56 | .0738 | .0633 | .0551 | .0484 | .0430 | .0386 | .0349 | .0318 | .0291 | .0268 |
| 0.57 | .0755 | .0649 | .0564 | .0496 | .0441 | .0396 | .0358 | .0326 | .0299 | .0275 |
| 0.58 | .0773 | .0665 | .0578 | .0509 | .0452 | .0405 | .0367 | .0334 | .0306 | .0282 |
| 0.59 | .0793 | .0681 | .0593 | .0522 | .0464 | .0416 | .0377 | .0343 | .0315 | .0290 |
| 0.60 | .0813 | .0699 | .0609 | .0536 | .0476 | .0428 | .0387 | .0352 | .0323 | .0298 |

TIME BETWEEN MEASUREMENTS = 10 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0149 | .0132 | .0119 | .0107 | .0097 | .0089 | .0081 | .0075 | .0069 | .0064 |
| 0.31 | .0151 | .0134 | .0120 | .0109 | .0099 | .0090 | .0083 | .0076 | .0070 | .0065 |
| 0.32 | .0153 | .0136 | .0122 | .0110 | .0100 | .0091 | .0084 | .0077 | .0071 | .0066 |
| 0.33 | .0155 | .0138 | .0123 | .0112 | .0101 | .0092 | .0085 | .0078 | .0072 | .0067 |
| 0.34 | .0157 | .0140 | .0125 | .0113 | .0103 | .0094 | .0086 | .0079 | .0073 | .0068 |
| 0.35 | .0159 | .0142 | .0127 | .0115 | .0104 | .0095 | .0087 | .0080 | .0074 | .0069 |
| 0.36 | .0162 | .0144 | .0129 | .0116 | .0106 | .0097 | .0089 | .0082 | .0075 | .0070 |
| 0.37 | .0164 | .0146 | .0131 | .0118 | .0107 | .0098 | .0090 | .0083 | .0077 | .0071 |
| 0.38 | .0166 | .0148 | .0133 | .0120 | .0109 | .0099 | .0091 | .0084 | .0078 | .0072 |
| 0.39 | .0169 | .0150 | .0135 | .0122 | .0111 | .0101 | .0093 | .0085 | .0079 | .0073 |
| 0.40 | .0172 | .0153 | .0137 | .0124 | .0112 | .0103 | .0094 | .0087 | .0080 | .0074 |
| 0.41 | .0174 | .0155 | .0139 | .0126 | .0114 | .0104 | .0096 | .0088 | .0081 | .0076 |
| 0.42 | .0177 | .0158 | .0142 | .0128 | .0116 | .0106 | .0097 | .0090 | .0083 | .0077 |
| 0.43 | .0180 | .0161 | .0144 | .0130 | .0118 | .0108 | .0099 | .0091 | .0084 | .0078 |
| 0.44 | .0184 | .0163 | .0147 | .0132 | .0120 | .0110 | .0101 | .0093 | .0086 | .0080 |
| 0.45 | .0187 | .0166 | .0149 | .0135 | .0122 | .0112 | .0103 | .0095 | .0087 | .0081 |
| 0.46 | .0190 | .0169 | .0152 | .0137 | .0125 | .0114 | .0105 | .0096 | .0089 | .0083 |
| 0.47 | .0194 | .0173 | .0155 | .0140 | .0127 | .0116 | .0107 | .0098 | .0091 | .0084 |
| 0.48 | .0198 | .0176 | .0158 | .0143 | .0130 | .0119 | .0109 | .0100 | .0093 | .0086 |
| 0.49 | .0202 | .0180 | .0161 | .0146 | .0132 | .0121 | .0111 | .0102 | .0095 | .0088 |
| 0.50 | .0206 | .0183 | .0165 | .0149 | .0135 | .0124 | .0113 | .0104 | .0097 | .0090 |
| 0.51 | .0211 | .0187 | .0168 | .0152 | .0138 | .0126 | .0116 | .0107 | .0099 | .0092 |
| 0.52 | .0215 | .0192 | .0172 | .0155 | .0141 | .0129 | .0118 | .0109 | .0101 | .0094 |
| 0.53 | .0220 | .0196 | .0176 | .0159 | .0145 | .0132 | .0121 | .0112 | .0103 | .0096 |
| 0.54 | .0225 | .0201 | .0180 | .0163 | .0148 | .0135 | .0124 | .0114 | .0106 | .0098 |
| 0.55 | .0231 | .0205 | .0184 | .0167 | .0152 | .0138 | .0127 | .0117 | .0108 | .0101 |
| 0.56 | .0236 | .0211 | .0189 | .0171 | .0155 | .0142 | .0130 | .0120 | .0111 | .0103 |
| 0.57 | .0243 | .0216 | .0194 | .0175 | .0159 | .0146 | .0134 | .0123 | .0114 | .0106 |
| 0.58 | .0249 | .0222 | .0199 | .0180 | .0164 | .0150 | .0137 | .0126 | .0117 | .0109 |
| 0.59 | .0256 | .0228 | .0204 | .0185 | .0168 | .0154 | .0141 | .0130 | .0120 | .0112 |
| 0.60 | .0263 | .0234 | .0210 | .0190 | .0173 | .0158 | .0145 | .0134 | .0124 | .0115 |

TIME BETWEEN MEASUREMENTS = 10 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0049 | .0040 | .0033 | .0029 | .0025 | .0022 | .0020 | .0018 | .0017 | .0015 |
| 0.31 | .0050 | .0040 | .0034 | .0029 | .0025 | .0023 | .0020 | .0019 | .0017 | .0015 |
| 0.32 | .0051 | .0041 | .0034 | .0029 | .0026 | .0023 | .0021 | .0019 | .0017 | .0016 |
| 0.33 | .0051 | .0041 | .0035 | .0030 | .0026 | .0023 | .0021 | .0019 | .0017 | .0018 |
| 0.34 | .0052 | .0042 | .0035 | .0030 | .0026 | .0024 | .0021 | .0019 | .0018 | .0016 |
| 0.35 | .0053 | .0043 | .0036 | .0031 | .0027 | .0024 | .0022 | .0020 | .0018 | .0016 |
| 0.36 | .0054 | .0043 | .0036 | .0031 | .0027 | .0024 | .0022 | .0020 | .0018 | .0017 |
| 0.37 | .0054 | .0044 | .0037 | .0032 | .0028 | .0025 | .0022 | .0020 | .0018 | .0017 |
| 0.38 | .0055 | .0044 | .0037 | .0032 | .0028 | .0025 | .0023 | .0020 | .0019 | .0017 |
| 0.39 | .0056 | .0045 | .0038 | .0033 | .0029 | .0025 | .0023 | .0021 | .0019 | .0017 |
| 0.40 | .0057 | .0046 | .0038 | .0033 | .0029 | .0026 | .0023 | .0021 | .0019 | .0018 |
| 0.41 | .0058 | .0047 | .0039 | .0034 | .0030 | .0026 | .0024 | .0022 | .0020 | .0018 |
| 0.42 | .0059 | .0048 | .0040 | .0034 | .0030 | .0027 | .0024 | .0022 | .0020 | .0018 |
| 0.43 | .0060 | .0048 | .0040 | .0035 | .0031 | .0027 | .0025 | .0022 | .0020 | .0019 |
| 0.44 | .0061 | .0049 | .0041 | .0035 | .0031 | .0028 | .0025 | .0023 | .0021 | .0019 |
| 0.45 | .0062 | .0050 | .0042 | .0036 | .0032 | .0028 | .0025 | .0023 | .0021 | .0019 |
| 0.46 | .0063 | .0051 | .0043 | .0037 | .0032 | .0029 | .0026 | .0024 | .0021 | .0020 |
| 0.47 | .0065 | .0052 | .0044 | .0038 | .0033 | .0029 | .0026 | .0024 | .0022 | .0020 |
| 0.48 | .0066 | .0053 | .0044 | .0038 | .0034 | .0030 | .0027 | .0025 | .0022 | .0020 |
| 0.49 | .0067 | .0054 | .0045 | .0039 | .0034 | .0031 | .0028 | .0025 | .0023 | .0021 |
| 0.50 | .0069 | .0055 | .0046 | .0040 | .0035 | .0031 | .0028 | .0026 | .0023 | .0021 |
| 0.51 | .0070 | .0057 | .0047 | .0041 | .0036 | .0032 | .0029 | .0026 | .0024 | .0022 |
| 0.52 | .0072 | .0058 | .0048 | .0042 | .0037 | .0033 | .0029 | .0027 | .0024 | .0022 |
| 0.53 | .0074 | .0059 | .0050 | .0043 | .0038 | .0034 | .0030 | .0027 | .0025 | .0023 |
| 0.54 | .0075 | .0061 | .0051 | .0044 | .0039 | .0034 | .0031 | .0028 | .0026 | .0023 |
| 0.55 | .0077 | .0062 | .0052 | .0045 | .0039 | .0035 | .0032 | .0029 | .0026 | .0024 |
| 0.56 | .0079 | .0064 | .0053 | .0046 | .0040 | .0036 | .0033 | .0030 | .0027 | .0025 |
| 0.57 | .0081 | .0066 | .0055 | .0047 | .0042 | .0037 | .0033 | .0030 | .0028 | .0025 |
| 0.58 | .0084 | .0067 | .0056 | .0049 | .0043 | .0038 | .0034 | .0031 | .0028 | .0026 |
| 0.59 | .0086 | .0069 | .0058 | .0050 | .0044 | .0039 | .0035 | .0032 | .0029 | .0027 |
| 0.60 | .0088 | .0071 | .0060 | .0051 | .0045 | .0040 | .0036 | .0033 | .0030 | .0027 |

TIME BETWEEN MEASUREMENTS = 12 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .6207 | .4461 | .3480 | .2852 | .2413 | .2088 | .1839 | .1641 | .1481 | .1348 |
| 0.31 | .6237 | .4484 | .3511 | .2880 | .2438 | .2111 | .1859 | .1660 | .1498 | .1364 |
| 0.32 | .6268 | .4527 | .3542 | .2908 | .2463 | .2134 | .1881 | .1680 | .1518 | .1381 |
| 0.33 | .6299 | .4562 | .3575 | .2938 | .2490 | .2158 | .1903 | .1700 | .1535 | .1398 |
| 0.34 | .6330 | .4597 | .3608 | .2968 | .2518 | .2183 | .1925 | .1721 | .1554 | .1416 |
| 0.35 | .6363 | .4633 | .3643 | .2999 | .2546 | .2209 | .1949 | .1742 | .1574 | .1434 |
| 0.36 | .6396 | .4671 | .3678 | .3032 | .2575 | .2235 | .1973 | .1765 | .1595 | .1453 |
| 0.37 | .6430 | .4709 | .3715 | .3065 | .2605 | .2263 | .1998 | .1788 | .1616 | .1473 |
| 0.38 | .6465 | .4748 | .3752 | .3100 | .2637 | .2292 | .2024 | .1812 | .1638 | .1493 |
| 0.39 | .6500 | .4789 | .3791 | .3135 | .2669 | .2321 | .2052 | .1837 | .1661 | .1515 |
| 0.40 | .6537 | .4831 | .3831 | .3172 | .2703 | .2352 | .2080 | .1863 | .1685 | .1537 |
| 0.41 | .6574 | .4874 | .3873 | .3210 | .2738 | .2383 | .2109 | .1889 | .1710 | .1560 |
| 0.42 | .6612 | .4918 | .3915 | .3248 | .2774 | .2416 | .2139 | .1917 | .1736 | .1584 |
| 0.43 | .6651 | .4964 | .3959 | .3290 | .2811 | .2451 | .2170 | .1946 | .1763 | .1609 |
| 0.44 | .6692 | .5010 | .4005 | .3332 | .2849 | .2488 | .2203 | .1978 | .1790 | .1635 |
| 0.45 | .6733 | .5059 | .4052 | .3378 | .2889 | .2523 | .2237 | .2008 | .1819 | .1662 |
| 0.46 | .6775 | .5108 | .4100 | .3421 | .2931 | .2561 | .2272 | .2040 | .1850 | .1690 |
| 0.47 | .6818 | .5159 | .4150 | .3466 | .2974 | .2600 | .2308 | .2074 | .1881 | .1718 |
| 0.48 | .6862 | .5212 | .4202 | .3516 | .3018 | .2642 | .2346 | .2109 | .1914 | .1749 |
| 0.49 | .6907 | .5266 | .4255 | .3568 | .3065 | .2684 | .2386 | .2146 | .1948 | .1781 |
| 0.50 | .6953 | .5321 | .4310 | .3617 | .3112 | .2728 | .2427 | .2184 | .1983 | .1814 |
| 0.51 | .7000 | .5378 | .4366 | .3670 | .3162 | .2774 | .2468 | .2223 | .2020 | .1848 |
| 0.52 | .7048 | .5437 | .4424 | .3725 | .3213 | .2822 | .2513 | .2264 | .2058 | .1884 |
| 0.53 | .7097 | .5497 | .4484 | .3782 | .3266 | .2871 | .2559 | .2307 | .2097 | .1921 |
| 0.54 | .7147 | .5558 | .4546 | .3840 | .3320 | .2922 | .2608 | .2351 | .2139 | .1959 |
| 0.55 | .7198 | .5621 | .4609 | .3901 | .3377 | .2974 | .2655 | .2396 | .2181 | .1999 |
| 0.56 | .7250 | .5685 | .4673 | .3962 | .3435 | .3028 | .2706 | .2444 | .2226 | .2041 |
| 0.57 | .7302 | .5750 | .4739 | .4026 | .3495 | .3084 | .2758 | .2493 | .2272 | .2084 |
| 0.58 | .7355 | .5818 | .4807 | .4091 | .3556 | .3142 | .2812 | .2543 | .2319 | .2128 |
| 0.59 | .7408 | .5884 | .4876 | .4157 | .3619 | .3201 | .2868 | .2595 | .2368 | .2174 |
| 0.60 | .7462 | .5952 | .4946 | .4225 | .3683 | .3262 | .2925 | .2649 | .2418 | .2221 |

TIME BETWEEN MEASUREMENTS = 12 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1235 | .1138 | .1054 | .0979 | .0913 | .0853 | .0799 | .0750 | .0706 | .0665 |
| 0.31 | .1250 | .1152 | .1067 | .0991 | .0924 | .0864 | .0809 | .0760 | .0715 | .0673 |
| 0.32 | .1266 | .1167 | .1080 | .1004 | .0936 | .0875 | .0819 | .0769 | .0724 | .0682 |
| 0.33 | .1282 | .1182 | .1094 | .1017 | .0948 | .0886 | .0830 | .0780 | .0733 | .0691 |
| 0.34 | .1298 | .1197 | .1108 | .1030 | .0961 | .0899 | .0841 | .0790 | .0743 | .0700 |
| 0.35 | .1315 | .1213 | .1123 | .1044 | .0974 | .0910 | .0853 | .0801 | .0753 | .0710 |
| 0.36 | .1333 | .1229 | .1139 | .1059 | .0987 | .0923 | .0865 | .0812 | .0764 | .0720 |
| 0.37 | .1351 | .1247 | .1155 | .1074 | .1001 | .0936 | .0877 | .0824 | .0775 | .0731 |
| 0.38 | .1370 | .1264 | .1171 | .1089 | .1016 | .0950 | .0890 | .0836 | .0787 | .0742 |
| 0.39 | .1390 | .1283 | .1189 | .1105 | .1031 | .0964 | .0904 | .0849 | .0799 | .0753 |
| 0.40 | .1411 | .1302 | .1207 | .1122 | .1047 | .0979 | .0918 | .0862 | .0811 | .0765 |
| 0.41 | .1432 | .1322 | .1225 | .1140 | .1063 | .0995 | .0932 | .0876 | .0824 | .0777 |
| 0.42 | .1455 | .1343 | .1245 | .1158 | .1080 | .1011 | .0947 | .0890 | .0836 | .0790 |
| 0.43 | .1478 | .1365 | .1265 | .1177 | .1098 | .1027 | .0963 | .0905 | .0852 | .0803 |
| 0.44 | .1502 | .1387 | .1286 | .1197 | .1117 | .1045 | .0980 | .0921 | .0867 | .0817 |
| 0.45 | .1527 | .1411 | .1308 | .1217 | .1136 | .1063 | .0997 | .0937 | .0882 | .0832 |
| 0.46 | .1553 | .1435 | .1331 | .1239 | .1158 | .1082 | .1015 | .0954 | .0898 | .0847 |
| 0.47 | .1581 | .1460 | .1355 | .1261 | .1177 | .1102 | .1033 | .0971 | .0914 | .0863 |
| 0.48 | .1609 | .1487 | .1380 | .1284 | .1199 | .1122 | .1053 | .0990 | .0932 | .0879 |
| 0.49 | .1638 | .1515 | .1406 | .1309 | .1222 | .1144 | .1073 | .1009 | .0950 | .0896 |
| 0.50 | .1669 | .1543 | .1433 | .1334 | .1246 | .1166 | .1094 | .1029 | .0969 | .0914 |
| 0.51 | .1701 | .1573 | .1461 | .1361 | .1271 | .1190 | .1116 | .1050 | .0989 | .0933 |
| 0.52 | .1735 | .1605 | .1490 | .1388 | .1297 | .1214 | .1139 | .1071 | .1008 | .0952 |
| 0.53 | .1769 | .1637 | .1520 | .1417 | .1324 | .1240 | .1163 | .1094 | .1031 | .0973 |
| 0.54 | .1805 | .1671 | .1552 | .1447 | .1352 | .1266 | .1188 | .1118 | .1053 | .0994 |
| 0.55 | .1843 | .1706 | .1585 | .1478 | .1381 | .1294 | .1214 | .1142 | .1078 | .1016 |
| 0.56 | .1882 | .1742 | .1619 | .1510 | .1411 | .1322 | .1242 | .1168 | .1101 | .1039 |
| 0.57 | .1922 | .1780 | .1655 | .1543 | .1443 | .1352 | .1270 | .1195 | .1126 | .1063 |
| 0.58 | .1963 | .1819 | .1692 | .1578 | .1475 | .1383 | .1299 | .1222 | .1152 | .1088 |
| 0.59 | .2006 | .1860 | .1730 | .1614 | .1509 | .1415 | .1329 | .1251 | .1179 | .1114 |
| 0.60 | .2051 | .1901 | .1769 | .1651 | .1544 | .1448 | .1360 | .1280 | .1207 | .1140 |

TIME BETWEEN MEASUREMENTS = 12 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0662 | .0481 | .0418 | .0366 | .0325 | .0291 | .0263 | .0239 | .0219 | .0201 |
| 0.31 | .0569 | .0488 | .0423 | .0371 | .0329 | .0295 | .0266 | .0242 | .0222 | .0204 |
| 0.32 | .0676 | .0484 | .0429 | .0376 | .0334 | .0299 | .0270 | .0245 | .0225 | .0207 |
| 0.33 | .0584 | .0501 | .0434 | .0381 | .0338 | .0303 | .0274 | .0249 | .0228 | .0210 |
| 0.34 | .0692 | .0608 | .0440 | .0387 | .0343 | .0307 | .0277 | .0252 | .0231 | .0213 |
| 0.35 | .0801 | .0515 | .0447 | .0392 | .0348 | .0312 | .0281 | .0256 | .0234 | .0216 |
| 0.36 | .0609 | .0622 | .0453 | .0398 | .0353 | .0316 | .0286 | .0260 | .0238 | .0219 |
| 0.37 | .0618 | .0530 | .0460 | .0404 | .0359 | .0321 | .0290 | .0264 | .0242 | .0223 |
| 0.38 | .0627 | .0638 | .0467 | .0410 | .0364 | .0326 | .0295 | .0268 | .0245 | .0226 |
| 0.39 | .0637 | .0546 | .0474 | .0417 | .0370 | .0331 | .0299 | .0272 | .0249 | .0230 |
| 0.40 | .0647 | .0655 | .0482 | .0424 | .0376 | .0337 | .0304 | .0277 | .0254 | .0234 |
| 0.41 | .0658 | .0564 | .0490 | .0431 | .0382 | .0343 | .0309 | .0282 | .0258 | .0238 |
| 0.42 | .0669 | .0674 | .0498 | .0438 | .0389 | .0348 | .0315 | .0287 | .0263 | .0242 |
| 0.43 | .0680 | .0584 | .0507 | .0446 | .0396 | .0355 | .0321 | .0292 | .0267 | .0246 |
| 0.44 | .0692 | .0594 | .0616 | .0454 | .0403 | .0361 | .0326 | .0297 | .0272 | .0251 |
| 0.45 | .0704 | .0606 | .0526 | .0462 | .0410 | .0368 | .0333 | .0303 | .0277 | .0256 |
| 0.46 | .0717 | .0616 | .0635 | .0471 | .0418 | .0375 | .0339 | .0309 | .0283 | .0261 |
| 0.47 | .0731 | .0628 | .0546 | .0480 | .0426 | .0382 | .0346 | .0315 | .0288 | .0268 |
| 0.48 | .0745 | .0640 | .0656 | .0489 | .0435 | .0390 | .0353 | .0321 | .0294 | .0271 |
| 0.49 | .0760 | .0653 | .0568 | .0499 | .0444 | .0398 | .0360 | .0328 | .0301 | .0277 |
| 0.50 | .0775 | .0666 | .0579 | .0510 | .0453 | .0407 | .0368 | .0335 | .0307 | .0283 |
| 0.51 | .0791 | .0680 | .0592 | .0521 | .0463 | .0415 | .0376 | .0342 | .0314 | .0289 |
| 0.52 | .0808 | .0695 | .0605 | .0532 | .0473 | .0425 | .0384 | .0350 | .0321 | .0296 |
| 0.53 | .0825 | .0710 | .0618 | .0544 | .0484 | .0434 | .0393 | .0358 | .0328 | .0303 |
| 0.54 | .0844 | .0728 | .0632 | .0557 | .0495 | .0444 | .0402 | .0367 | .0336 | .0310 |
| 0.55 | .0863 | .0742 | .0647 | .0570 | .0507 | .0455 | .0412 | .0375 | .0344 | .0317 |
| 0.56 | .0883 | .0760 | .0662 | .0583 | .0519 | .0466 | .0422 | .0385 | .0353 | .0325 |
| 0.57 | .0903 | .0778 | .0678 | .0607 | .0532 | .0478 | .0432 | .0394 | .0362 | .0334 |
| 0.58 | .0925 | .0796 | .0694 | .0612 | .0545 | .0489 | .0443 | .0404 | .0371 | .0342 |
| 0.59 | .0947 | .0818 | .0711 | .0627 | .0559 | .0502 | .0455 | .0415 | .0381 | .0351 |
| 0.60 | .0970 | .0836 | .0729 | .0643 | .0573 | .0515 | .0466 | .0426 | .0391 | .0360 |

TIME BETWEEN MEASUREMENTS = 12 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0177 | .0158 | .0141 | .0128 | .0116 | .0105 | .0097 | .0089 | .0083 | .0077 |
| 0.31 | .0180 | .0160 | .0143 | .0129 | .0118 | .0107 | .0098 | .0091 | .0084 | .0078 |
| 0.32 | .0182 | .0162 | .0145 | .0131 | .0119 | .0108 | .0100 | .0092 | .0085 | .0079 |
| 0.33 | .0185 | .0164 | .0147 | .0133 | .0121 | .0110 | .0101 | .0093 | .0086 | .0080 |
| 0.34 | .0187 | .0167 | .0149 | .0135 | .0123 | .0112 | .0103 | .0095 | .0088 | .0081 |
| 0.35 | .0190 | .0169 | .0152 | .0137 | .0125 | .0114 | .0104 | .0096 | .0089 | .0082 |
| 0.36 | .0193 | .0172 | .0154 | .0139 | .0126 | .0115 | .0106 | .0098 | .0090 | .0084 |
| 0.37 | .0196 | .0174 | .0156 | .0141 | .0128 | .0117 | .0108 | .0099 | .0092 | .0085 |
| 0.38 | .0199 | .0177 | .0159 | .0144 | .0130 | .0119 | .0109 | .0101 | .0093 | .0086 |
| 0.39 | .0202 | .0180 | .0162 | .0146 | .0133 | .0121 | .0111 | .0102 | .0095 | .0088 |
| 0.40 | .0206 | .0183 | .0164 | .0148 | .0135 | .0123 | .0113 | .0104 | .0096 | .0089 |
| 0.41 | .0209 | .0186 | .0167 | .0151 | .0137 | .0125 | .0115 | .0106 | .0098 | .0091 |
| 0.42 | .0213 | .0190 | .0170 | .0154 | .0140 | .0128 | .0117 | .0108 | .0100 | .0093 |
| 0.43 | .0217 | .0193 | .0173 | .0157 | .0142 | .0130 | .0119 | .0110 | .0102 | .0094 |
| 0.44 | .0221 | .0197 | .0177 | .0160 | .0145 | .0132 | .0122 | .0112 | .0104 | .0096 |
| 0.45 | .0225 | .0200 | .0180 | .0163 | .0148 | .0135 | .0124 | .0114 | .0106 | .0098 |
| 0.46 | .0230 | .0204 | .0183 | .0166 | .0151 | .0138 | .0126 | .0116 | .0108 | .0100 |
| 0.47 | .0234 | .0209 | .0187 | .0169 | .0154 | .0141 | .0129 | .0119 | .0110 | .0102 |
| 0.48 | .0239 | .0213 | .0191 | .0173 | .0157 | .0144 | .0132 | .0121 | .0112 | .0104 |
| 0.49 | .0244 | .0217 | .0195 | .0176 | .0160 | .0147 | .0135 | .0124 | .0115 | .0107 |
| 0.50 | .0249 | .0222 | .0200 | .0180 | .0164 | .0150 | .0138 | .0127 | .0117 | .0109 |
| 0.51 | .0255 | .0227 | .0204 | .0184 | .0168 | .0153 | .0141 | .0130 | .0120 | .0111 |
| 0.52 | .0261 | .0232 | .0209 | .0189 | .0172 | .0157 | .0144 | .0133 | .0123 | .0114 |
| 0.53 | .0267 | .0238 | .0214 | .0193 | .0176 | .0161 | .0147 | .0136 | .0126 | .0117 |
| 0.54 | .0273 | .0244 | .0219 | .0198 | .0180 | .0164 | .0151 | .0139 | .0129 | .0120 |
| 0.55 | .0280 | .0250 | .0224 | .0203 | .0184 | .0169 | .0155 | .0143 | .0132 | .0123 |
| 0.56 | .0287 | .0256 | .0230 | .0209 | .0189 | .0173 | .0159 | .0146 | .0135 | .0126 |
| 0.57 | .0294 | .0262 | .0236 | .0213 | .0194 | .0177 | .0163 | .0150 | .0139 | .0129 |
| 0.58 | .0302 | .0269 | .0242 | .0219 | .0199 | .0182 | .0167 | .0154 | .0143 | .0133 |
| 0.59 | .0310 | .0276 | .0248 | .0225 | .0204 | .0187 | .0172 | .0158 | .0146 | .0136 |
| 0.60 | .0318 | .0284 | .0255 | .0231 | .0210 | .0192 | .0176 | .0163 | .0151 | .0140 |

TIME BETWEEN MEASUREMENTS = 12 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0059 | .0047 | .0040 | .0034 | .0030 | .0027 | .0024 | .0022 | .0020 | .0018 |
| 0.31 | .0060 | .0048 | .0040 | .0035 | .0030 | .0027 | .0024 | .0022 | .0020 | .0018 |
| 0.32 | .0061 | .0049 | .0041 | .0035 | .0031 | .0028 | .0025 | .0022 | .0020 | .0019 |
| 0.33 | .0061 | .0049 | .0041 | .0036 | .0031 | .0028 | .0025 | .0023 | .0021 | .0019 |
| 0.34 | .0062 | .0050 | .0042 | .0036 | .0032 | .0028 | .0026 | .0023 | .0021 | .0019 |
| 0.35 | .0063 | .0051 | .0043 | .0037 | .0032 | .0029 | .0026 | .0024 | .0021 | .0020 |
| 0.36 | .0064 | .0052 | .0043 | .0037 | .0033 | .0029 | .0026 | .0024 | .0022 | .0020 |
| 0.37 | .0065 | .0053 | .0044 | .0038 | .0033 | .0030 | .0027 | .0024 | .0022 | .0020 |
| 0.38 | .0066 | .0053 | .0045 | .0038 | .0034 | .0030 | .0027 | .0025 | .0022 | .0021 |
| 0.39 | .0068 | .0054 | .0045 | .0039 | .0034 | .0031 | .0028 | .0025 | .0023 | .0021 |
| 0.40 | .0069 | .0055 | .0046 | .0040 | .0035 | .0031 | .0028 | .0026 | .0023 | .0021 |
| 0.41 | .0070 | .0056 | .0047 | .0041 | .0036 | .0032 | .0029 | .0026 | .0024 | .0022 |
| 0.42 | .0071 | .0057 | .0048 | .0041 | .0036 | .0032 | .0029 | .0026 | .0024 | .0022 |
| 0.43 | .0073 | .0058 | .0049 | .0042 | .0037 | .0033 | .0030 | .0027 | .0025 | .0022 |
| 0.44 | .0074 | .0060 | .0050 | .0043 | .0038 | .0034 | .0030 | .0027 | .0025 | .0023 |
| 0.45 | .0075 | .0061 | .0051 | .0044 | .0038 | .0034 | .0031 | .0028 | .0026 | .0023 |
| 0.46 | .0077 | .0062 | .0052 | .0045 | .0039 | .0035 | .0032 | .0029 | .0026 | .0024 |
| 0.47 | .0078 | .0063 | .0053 | .0046 | .0040 | .0036 | .0032 | .0029 | .0027 | .0024 |
| 0.48 | .0080 | .0065 | .0054 | .0047 | .0041 | .0037 | .0033 | .0030 | .0027 | .0025 |
| 0.49 | .0082 | .0066 | .0055 | .0048 | .0042 | .0037 | .0034 | .0031 | .0028 | .0025 |
| 0.50 | .0084 | .0067 | .0056 | .0049 | .0043 | .0038 | .0034 | .0031 | .0028 | .0026 |
| 0.51 | .0086 | .0069 | .0058 | .0050 | .0044 | .0039 | .0035 | .0032 | .0029 | .0027 |
| 0.52 | .0088 | .0071 | .0059 | .0051 | .0045 | .0040 | .0036 | .0033 | .0030 | .0027 |
| 0.53 | .0090 | .0072 | .0061 | .0052 | .0046 | .0041 | .0037 | .0034 | .0031 | .0028 |
| 0.54 | .0092 | .0074 | .0052 | .0054 | .0047 | .0042 | .0038 | .0034 | .0031 | .0029 |
| 0.55 | .0094 | .0076 | .0064 | .0055 | .0048 | .0043 | .0039 | .0035 | .0032 | .0029 |
| 0.56 | .0097 | .0078 | .0065 | .0056 | .0050 | .0044 | .0040 | .0036 | .0033 | .0030 |
| 0.57 | .0099 | .0080 | .0067 | .0058 | .0051 | .0045 | .0041 | .0037 | .0034 | .0031 |
| 0.58 | .0102 | .0082 | .0069 | .0059 | .0052 | .0047 | .0042 | .0038 | .0035 | .0032 |
| 0.59 | .0105 | .0085 | .0071 | .0061 | .0054 | .0048 | .0043 | .0039 | .0036 | .0033 |
| 0.60 | .0108 | .0087 | .0073 | .0063 | .0055 | .0049 | .0044 | .0040 | .0037 | .0034 |

TIME BETWEEN MEASUREMENTS = 15 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .6687 | .5006 | .4000 | .3328 | .2845 | .2482 | .2200 | .1973 | .1788 | .1632 |
| 0.31 | .6718 | .5042 | .4035 | .3361 | .2876 | .2510 | .2225 | .1997 | .1809 | .1652 |
| 0.32 | .6750 | .5079 | .4072 | .3395 | .2907 | .2539 | .2251 | .2021 | .1832 | .1673 |
| 0.33 | .6782 | .5118 | .4109 | .3429 | .2939 | .2568 | .2279 | .2046 | .1855 | .1695 |
| 0.34 | .6816 | .5157 | .4148 | .3465 | .2972 | .2598 | .2307 | .2072 | .1879 | .1718 |
| 0.35 | .6849 | .5197 | .4187 | .3502 | .3006 | .2630 | .2336 | .2099 | .1904 | .1741 |
| 0.36 | .6884 | .5239 | .4228 | .3540 | .3041 | .2662 | .2366 | .2127 | .1930 | .1765 |
| 0.37 | .6919 | .5281 | .4270 | .3580 | .3077 | .2696 | .2397 | .2156 | .1957 | .1790 |
| 0.38 | .6956 | .5325 | .4313 | .3620 | .3115 | .2731 | .2429 | .2186 | .1985 | .1816 |
| 0.39 | .6992 | .5369 | .4357 | .3662 | .3154 | .2767 | .2462 | .2217 | .2014 | .1843 |
| 0.40 | .7030 | .5415 | .4402 | .3705 | .3194 | .2804 | .2497 | .2248 | .2043 | .1870 |
| 0.41 | .7068 | .5462 | .4449 | .3749 | .3235 | .2842 | .2532 | .2281 | .2074 | .1899 |
| 0.42 | .7108 | .5509 | .4497 | .3794 | .3277 | .2881 | .2569 | .2316 | .2106 | .1929 |
| 0.43 | .7147 | .5558 | .4546 | .3841 | .3321 | .2922 | .2606 | .2351 | .2139 | .1960 |
| 0.44 | .7188 | .5608 | .4596 | .3888 | .3365 | .2964 | .2646 | .2387 | .2173 | .1991 |
| 0.45 | .7229 | .5659 | .4647 | .3938 | .3412 | .3007 | .2686 | .2425 | .2208 | .2024 |
| 0.46 | .7271 | .5711 | .4700 | .3988 | .3459 | .3051 | .2727 | .2464 | .2244 | .2058 |
| 0.47 | .7313 | .5764 | .4754 | .4040 | .3508 | .3097 | .2770 | .2504 | .2282 | .2093 |
| 0.48 | .7356 | .5818 | .4809 | .4093 | .3558 | .3144 | .2814 | .2545 | .2320 | .2129 |
| 0.49 | .7400 | .5873 | .4865 | .4147 | .3609 | .3192 | .2859 | .2587 | .2360 | .2167 |
| 0.50 | .7444 | .5928 | .4922 | .4202 | .3661 | .3241 | .2906 | .2631 | .2401 | .2205 |
| 0.51 | .7488 | .5985 | .4980 | .4258 | .3715 | .3292 | .2953 | .2676 | .2443 | .2245 |
| 0.52 | .7532 | .6041 | .5039 | .4315 | .3770 | .3344 | .3002 | .2721 | .2486 | .2285 |
| 0.53 | .7577 | .6099 | .5098 | .4374 | .3826 | .3397 | .3052 | .2768 | .2530 | .2327 |
| 0.54 | .7621 | .6157 | .5158 | .4433 | .3882 | .3451 | .3103 | .2817 | .2576 | .2369 |
| 0.55 | .7666 | .6215 | .5219 | .4493 | .3940 | .3506 | .3155 | .2866 | .2622 | .2413 |
| 0.56 | .7711 | .6273 | .5281 | .4554 | .3999 | .3562 | .3208 | .2916 | .2669 | .2456 |
| 0.57 | .7755 | .6332 | .5343 | .4616 | .4059 | .3619 | .3263 | .2967 | .2718 | .2503 |
| 0.58 | .7800 | .6391 | .5406 | .4678 | .4119 | .3677 | .3318 | .3020 | .2767 | .2550 |
| 0.59 | .7844 | .6450 | .5469 | .4741 | .4181 | .3736 | .3374 | .3073 | .2818 | .2598 |
| 0.60 | .7888 | .6509 | .5533 | .4805 | .4243 | .3796 | .3432 | .3128 | .2870 | .2647 |

TIME BETWEEN MEASUREMENTS = 15 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1500 | .1385 | .1284 | .1195 | .1115 | .1043 | .0978 | .0919 | .0865 | .0816 |
| 0.31 | .1518 | .1402 | .1301 | .1210 | .1129 | .1057 | .0991 | .0931 | .0877 | .0827 |
| 0.32 | .1538 | .1421 | .1318 | .1226 | .1144 | .1071 | .1004 | .0944 | .0888 | .0838 |
| 0.33 | .1558 | .1440 | .1335 | .1243 | .1160 | .1086 | .1018 | .0957 | .0901 | .0850 |
| 0.34 | .1579 | .1459 | .1354 | .1260 | .1176 | .1101 | .1033 | .0970 | .0914 | .0862 |
| 0.35 | .1601 | .1479 | .1373 | .1278 | .1193 | .1117 | .1047 | .0984 | .0927 | .0874 |
| 0.36 | .1623 | .1501 | .1392 | .1296 | .1210 | .1133 | .1063 | .0999 | .0941 | .0887 |
| 0.37 | .1647 | .1522 | .1413 | .1316 | .1229 | .1150 | .1079 | .1014 | .0955 | .0901 |
| 0.38 | .1671 | .1545 | .1434 | .1336 | .1247 | .1168 | .1096 | .1030 | .0970 | .0915 |
| 0.39 | .1696 | .1568 | .1456 | .1356 | .1267 | .1186 | .1113 | .1046 | .0985 | .0930 |
| 0.40 | .1722 | .1593 | .1479 | .1378 | .1287 | .1205 | .1131 | .1063 | .1001 | .0945 |
| 0.41 | .1749 | .1618 | .1502 | .1400 | .1308 | .1225 | .1149 | .1081 | .1018 | .0961 |
| 0.42 | .1777 | .1644 | .1527 | .1423 | .1329 | .1245 | .1169 | .1099 | .1035 | .0977 |
| 0.43 | .1805 | .1671 | .1552 | .1447 | .1352 | .1266 | .1189 | .1118 | .1053 | .0994 |
| 0.44 | .1835 | .1699 | .1578 | .1471 | .1375 | .1288 | .1209 | .1137 | .1072 | .1012 |
| 0.45 | .1866 | .1728 | .1606 | .1497 | .1399 | .1311 | .1231 | .1158 | .1091 | .1030 |
| 0.46 | .1898 | .1758 | .1634 | .1523 | .1424 | .1334 | .1253 | .1179 | .1111 | .1049 |
| 0.47 | .1931 | .1788 | .1663 | .1551 | .1450 | .1359 | .1276 | .1200 | .1131 | .1068 |
| 0.48 | .1985 | .1820 | .1693 | .1579 | .1476 | .1384 | .1300 | .1223 | .1153 | .1089 |
| 0.49 | .2000 | .1853 | .1724 | .1608 | .1504 | .1410 | .1324 | .1246 | .1175 | .1110 |
| 0.50 | .2036 | .1887 | .1758 | .1638 | .1532 | .1436 | .1349 | .1270 | .1198 | .1131 |
| 0.51 | .2073 | .1922 | .1788 | .1669 | .1561 | .1464 | .1376 | .1295 | .1221 | .1153 |
| 0.52 | .2111 | .1958 | .1822 | .1701 | .1591 | .1493 | .1403 | .1320 | .1245 | .1176 |
| 0.53 | .2150 | .1995 | .1857 | .1734 | .1622 | .1522 | .1430 | .1347 | .1270 | .1200 |
| 0.54 | .2190 | .2033 | .1893 | .1767 | .1654 | .1552 | .1459 | .1374 | .1296 | .1225 |
| 0.55 | .2231 | .2071 | .1929 | .1802 | .1687 | .1583 | .1488 | .1401 | .1322 | .1250 |
| 0.56 | .2273 | .2111 | .1967 | .1837 | .1720 | .1614 | .1518 | .1430 | .1349 | .1275 |
| 0.57 | .2317 | .2152 | .2005 | .1873 | .1755 | .1647 | .1549 | .1459 | .1377 | .1302 |
| 0.58 | .2361 | .2193 | .2044 | .1911 | .1790 | .1680 | .1580 | .1489 | .1406 | .1329 |
| 0.59 | .2406 | .2236 | .2085 | .1949 | .1826 | .1714 | .1613 | .1520 | .1435 | .1357 |
| 0.60 | .2452 | .2280 | .2126 | .1988 | .1863 | .1750 | .1646 | .1552 | .1465 | .1386 |

TIME BETWEEN MEASUREMENTS = 15 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0591 | .0693 | .0515 | .0453 | .0402 | .0360 | .0326 | .0297 | .0272 | .0250 |
| 0.31 | .0700 | .0601 | .0522 | .0459 | .0408 | .0366 | .0330 | .0301 | .0276 | .0254 |
| 0.32 | .0710 | .0609 | .0530 | .0466 | .0414 | .0371 | .0335 | .0305 | .0280 | .0258 |
| 0.33 | .0720 | .0618 | .0537 | .0472 | .0420 | .0376 | .0340 | .0310 | .0284 | .0261 |
| 0.34 | .0730 | .0627 | .0545 | .0479 | .0426 | .0382 | .0345 | .0314 | .0288 | .0266 |
| 0.35 | .0741 | .0636 | .0553 | .0487 | .0433 | .0388 | .0351 | .0319 | .0293 | .0270 |
| 0.36 | .0752 | .0646 | .0562 | .0494 | .0439 | .0394 | .0356 | .0325 | .0297 | .0274 |
| 0.37 | .0764 | .0656 | .0571 | .0502 | .0446 | .0400 | .0362 | .0330 | .0302 | .0279 |
| 0.38 | .0776 | .0667 | .0580 | .0510 | .0454 | .0407 | .0368 | .0335 | .0307 | .0283 |
| 0.39 | .0789 | .0678 | .0590 | .0519 | .0461 | .0414 | .0374 | .0341 | .0313 | .0288 |
| 0.40 | .0802 | .0689 | .0600 | .0528 | .0469 | .0421 | .0381 | .0347 | .0318 | .0293 |
| 0.41 | .0815 | .0701 | .0610 | .0537 | .0478 | .0429 | .0388 | .0353 | .0324 | .0299 |
| 0.42 | .0829 | .0713 | .0621 | .0547 | .0486 | .0436 | .0395 | .0360 | .0330 | .0304 |
| 0.43 | .0844 | .0726 | .0632 | .0557 | .0495 | .0444 | .0402 | .0367 | .0336 | .0310 |
| 0.44 | .0859 | .0739 | .0644 | .0567 | .0504 | .0453 | .0410 | .0374 | .0343 | .0316 |
| 0.45 | .0875 | .0753 | .0656 | .0578 | .0514 | .0462 | .0418 | .0381 | .0349 | .0322 |
| 0.46 | .0891 | .0767 | .0668 | .0589 | .0524 | .0471 | .0426 | .0389 | .0356 | .0329 |
| 0.47 | .0908 | .0782 | .0681 | .0600 | .0534 | .0480 | .0435 | .0396 | .0364 | .0335 |
| 0.48 | .0925 | .0797 | .0695 | .0612 | .0545 | .0490 | .0444 | .0405 | .0371 | .0342 |
| 0.49 | .0943 | .0813 | .0709 | .0625 | .0556 | .0500 | .0453 | .0413 | .0379 | .0350 |
| 0.50 | .0962 | .0829 | .0723 | .0638 | .0568 | .0510 | .0462 | .0422 | .0387 | .0357 |
| 0.51 | .0981 | .0848 | .0738 | .0651 | .0580 | .0521 | .0472 | .0431 | .0396 | .0365 |
| 0.52 | .1001 | .0863 | .0753 | .0665 | .0592 | .0533 | .0483 | .0440 | .0404 | .0373 |
| 0.53 | .1022 | .0881 | .0769 | .0679 | .0605 | .0544 | .0493 | .0450 | .0413 | .0381 |
| 0.54 | .1043 | .0900 | .0786 | .0693 | .0618 | .0556 | .0504 | .0460 | .0423 | .0390 |
| 0.55 | .1065 | .0919 | .0802 | .0709 | .0632 | .0569 | .0516 | .0471 | .0432 | .0399 |
| 0.56 | .1087 | .0938 | .0820 | .0724 | .0646 | .0581 | .0527 | .0481 | .0442 | .0408 |
| 0.57 | .1110 | .0959 | .0838 | .0740 | .0660 | .0594 | .0539 | .0493 | .0452 | .0418 |
| 0.58 | .1133 | .0979 | .0856 | .0757 | .0675 | .0608 | .0552 | .0504 | .0463 | .0428 |
| 0.59 | .1158 | .1001 | .0875 | .0774 | .0691 | .0622 | .0565 | .0516 | .0474 | .0438 |
| 0.60 | .1183 | .1023 | .0895 | .0791 | .0707 | .0637 | .0578 | .0528 | .0485 | .0448 |

TIME BETWEEN MEASUREMENTS = 15 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0220 | .0196 | .0176 | .0159 | .0145 | .0132 | .0121 | .0112 | .0103 | .0096 |
| 0.31 | .0224 | .0199 | .0179 | .0162 | .0147 | .0134 | .0123 | .0113 | .0105 | .0097 |
| 0.32 | .0227 | .0202 | .0181 | .0164 | .0149 | .0136 | .0125 | .0115 | .0107 | .0099 |
| 0.33 | .0230 | .0205 | .0184 | .0166 | .0151 | .0138 | .0127 | .0117 | .0108 | .0100 |
| 0.34 | .0234 | .0208 | .0187 | .0169 | .0154 | .0140 | .0129 | .0119 | .0110 | .0102 |
| 0.35 | .0238 | .0212 | .0190 | .0172 | .0156 | .0143 | .0131 | .0121 | .0112 | .0104 |
| 0.36 | .0242 | .0215 | .0193 | .0175 | .0159 | .0145 | .0133 | .0123 | .0114 | .0105 |
| 0.37 | .0246 | .0219 | .0196 | .0178 | .0161 | .0147 | .0135 | .0125 | .0115 | .0107 |
| 0.38 | .0250 | .0222 | .0200 | .0181 | .0164 | .0150 | .0138 | .0127 | .0117 | .0109 |
| 0.39 | .0254 | .0226 | .0203 | .0184 | .0167 | .0153 | .0140 | .0129 | .0120 | .0111 |
| 0.40 | .0259 | .0230 | .0207 | .0187 | .0170 | .0155 | .0143 | .0132 | .0122 | .0113 |
| 0.41 | .0263 | .0235 | .0211 | .0191 | .0173 | .0158 | .0145 | .0134 | .0124 | .0115 |
| 0.42 | .0268 | .0239 | .0215 | .0194 | .0177 | .0161 | .0148 | .0137 | .0126 | .0117 |
| 0.43 | .0273 | .0244 | .0219 | .0198 | .0180 | .0164 | .0151 | .0139 | .0129 | .0120 |
| 0.44 | .0279 | .0248 | .0223 | .0202 | .0184 | .0168 | .0154 | .0142 | .0131 | .0122 |
| 0.45 | .0284 | .0253 | .0228 | .0206 | .0187 | .0171 | .0157 | .0145 | .0134 | .0125 |
| 0.46 | .0290 | .0258 | .0232 | .0210 | .0191 | .0175 | .0160 | .0148 | .0137 | .0127 |
| 0.47 | .0296 | .0264 | .0237 | .0214 | .0195 | .0178 | .0164 | .0151 | .0140 | .0130 |
| 0.48 | .0302 | .0269 | .0242 | .0219 | .0199 | .0182 | .0167 | .0154 | .0143 | .0133 |
| 0.49 | .0309 | .0275 | .0247 | .0224 | .0204 | .0186 | .0171 | .0158 | .0148 | .0138 |
| 0.50 | .0315 | .0281 | .0253 | .0229 | .0208 | .0190 | .0175 | .0161 | .0149 | .0139 |
| 0.51 | .0322 | .0287 | .0258 | .0234 | .0213 | .0195 | .0179 | .0165 | .0153 | .0142 |
| 0.52 | .0329 | .0294 | .0264 | .0239 | .0218 | .0199 | .0183 | .0169 | .0158 | .0145 |
| 0.53 | .0337 | .0301 | .0270 | .0245 | .0223 | .0204 | .0187 | .0172 | .0160 | .0148 |
| 0.54 | .0345 | .0307 | .0276 | .0250 | .0228 | .0208 | .0191 | .0176 | .0163 | .0152 |
| 0.55 | .0353 | .0315 | .0283 | .0256 | .0233 | .0213 | .0196 | .0181 | .0167 | .0155 |
| 0.56 | .0361 | .0322 | .0290 | .0262 | .0239 | .0218 | .0201 | .0185 | .0171 | .0159 |
| 0.57 | .0369 | .0330 | .0296 | .0268 | .0244 | .0224 | .0205 | .0189 | .0175 | .0163 |
| 0.58 | .0378 | .0336 | .0304 | .0275 | .0250 | .0229 | .0210 | .0194 | .0180 | .0167 |
| 0.59 | .0387 | .0346 | .0311 | .0282 | .0256 | .0235 | .0216 | .0199 | .0184 | .0171 |
| 0.60 | .0397 | .0354 | .0319 | .0289 | .0263 | .0240 | .0221 | .0204 | .0189 | .0176 |

TIME BETWEEN MEASUREMENTS = 15 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0074 | .0059 | .0050 | .0043 | .0038 | .0034 | .0030 | .0027 | .0025 | .0023 |
| 0.31 | .0075 | .0060 | .0050 | .0043 | .0038 | .0034 | .0031 | .0028 | .0025 | .0023 |
| 0.32 | .0076 | .0061 | .0051 | .0044 | .0039 | .0035 | .0031 | .0028 | .0026 | .0024 |
| 0.33 | .0077 | .0062 | .0052 | .0045 | .0039 | .0035 | .0032 | .0029 | .0026 | .0024 |
| 0.34 | .0078 | .0063 | .0053 | .0046 | .0040 | .0036 | .0032 | .0029 | .0027 | .0024 |
| 0.35 | .0080 | .0064 | .0054 | .0046 | .0041 | .0036 | .0033 | .0030 | .0027 | .0025 |
| 0.36 | .0081 | .0065 | .0055 | .0047 | .0041 | .0037 | .0033 | .0030 | .0028 | .0025 |
| 0.37 | .0082 | .0066 | .0056 | .0048 | .0042 | .0038 | .0034 | .0031 | .0028 | .0026 |
| 0.38 | .0084 | .0068 | .0057 | .0049 | .0043 | .0039 | .0034 | .0031 | .0028 | .0026 |
| 0.39 | .0085 | .0069 | .0058 | .0050 | .0044 | .0039 | .0035 | .0032 | .0029 | .0027 |
| 0.40 | .0087 | .0070 | .0059 | .0051 | .0044 | .0040 | .0036 | .0032 | .0030 | .0027 |
| 0.41 | .0089 | .0071 | .0060 | .0051 | .0045 | .0040 | .0036 | .0033 | .0030 | .0028 |
| 0.42 | .0090 | .0073 | .0061 | .0052 | .0046 | .0041 | .0037 | .0034 | .0031 | .0028 |
| 0.43 | .0092 | .0074 | .0062 | .0054 | .0047 | .0042 | .0038 | .0034 | .0031 | .0029 |
| 0.44 | .0094 | .0076 | .0063 | .0055 | .0048 | .0043 | .0039 | .0035 | .0032 | .0029 |
| 0.45 | .0096 | .0077 | .0065 | .0056 | .0049 | .0044 | .0039 | .0036 | .0033 | .0030 |
| 0.46 | .0098 | .0079 | .0066 | .0057 | .0050 | .0045 | .0040 | .0037 | .0033 | .0030 |
| 0.47 | .0100 | .0081 | .0068 | .0059 | .0051 | .0046 | .0041 | .0037 | .0034 | .0031 |
| 0.48 | .0102 | .0082 | .0069 | .0059 | .0052 | .0047 | .0042 | .0038 | .0035 | .0032 |
| 0.49 | .0104 | .0084 | .0071 | .0061 | .0053 | .0048 | .0043 | .0039 | .0036 | .0033 |
| 0.50 | .0107 | .0086 | .0072 | .0062 | .0055 | .0049 | .0044 | .0040 | .0036 | .0033 |
| 0.51 | .0109 | .0088 | .0074 | .0064 | .0056 | .0050 | .0045 | .0041 | .0037 | .0034 |
| 0.52 | .0112 | .0090 | .0076 | .0065 | .0057 | .0051 | .0046 | .0042 | .0038 | .0035 |
| 0.53 | .0114 | .0092 | .0077 | .0067 | .0059 | .0052 | .0047 | .0043 | .0039 | .0036 |
| 0.54 | .0117 | .0094 | .0079 | .0068 | .0060 | .0054 | .0048 | .0044 | .0040 | .0037 |
| 0.55 | .0120 | .0097 | .0081 | .0070 | .0062 | .0055 | .0050 | .0045 | .0041 | .0038 |
| 0.56 | .0123 | .0099 | .0083 | .0072 | .0063 | .0056 | .0051 | .0046 | .0042 | .0038 |
| 0.57 | .0126 | .0102 | .0085 | .0074 | .0065 | .0058 | .0052 | .0047 | .0043 | .0039 |
| 0.58 | .0129 | .0104 | .0087 | .0075 | .0066 | .0059 | .0053 | .0048 | .0044 | .0040 |
| 0.59 | .0132 | .0107 | .0090 | .0077 | .0068 | .0061 | .0055 | .0050 | .0045 | .0041 |
| 0.60 | .0136 | .0110 | .0092 | .0079 | .0070 | .0062 | .0056 | .0051 | .0047 | .0043 |

TIME BETWEEN MEASUREMENTS = 20 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .7307 | .5756 | .4746 | .4032 | .3500 | .3090 | .2764 | .2498 | .2276 | .2088 |
| 0.31 | .7338 | .5796 | .4786 | .4070 | .3537 | .3124 | .2796 | .2528 | .2304 | .2114 |
| 0.32 | .7370 | .5836 | .4827 | .4110 | .3574 | .3159 | .2829 | .2559 | .2333 | .2141 |
| 0.33 | .7403 | .5877 | .4869 | .4151 | .3613 | .3195 | .2863 | .2590 | .2363 | .2169 |
| 0.34 | .7436 | .5918 | .4912 | .4192 | .3652 | .3232 | .2897 | .2623 | .2394 | .2198 |
| 0.35 | .7469 | .5961 | .4955 | .4234 | .3692 | .3270 | .2933 | .2656 | .2425 | .2228 |
| 0.36 | .7503 | .6004 | .4999 | .4277 | .3733 | .3309 | .2970 | .2691 | .2457 | .2258 |
| 0.37 | .7536 | .6047 | .5044 | .4321 | .3775 | .3349 | .3007 | .2726 | .2490 | .2289 |
| 0.38 | .7571 | .6091 | .5090 | .4366 | .3818 | .3390 | .3045 | .2762 | .2524 | .2321 |
| 0.39 | .7605 | .6136 | .5137 | .4412 | .3862 | .3431 | .3085 | .2799 | .2559 | .2354 |
| 0.40 | .7640 | .6181 | .5184 | .4458 | .3906 | .3474 | .3125 | .2837 | .2595 | .2387 |
| 0.41 | .7675 | .6226 | .5232 | .4505 | .3952 | .3517 | .3166 | .2878 | .2631 | .2422 |
| 0.42 | .7710 | .6272 | .5280 | .4553 | .3998 | .3561 | .3207 | .2915 | .2669 | .2457 |
| 0.43 | .7745 | .6318 | .5329 | .4601 | .4045 | .3606 | .3250 | .2955 | .2707 | .2493 |
| 0.44 | .7780 | .6365 | .5378 | .4651 | .4092 | .3651 | .3293 | .2996 | .2745 | .2529 |
| 0.45 | .7815 | .6411 | .5428 | .4700 | .4141 | .3697 | .3337 | .3038 | .2785 | .2567 |
| 0.46 | .7850 | .6456 | .5478 | .4750 | .4190 | .3744 | .3382 | .3081 | .2825 | .2605 |
| 0.47 | .7885 | .6505 | .5528 | .4801 | .4239 | .3792 | .3428 | .3124 | .2868 | .2644 |
| 0.48 | .7920 | .6552 | .5579 | .4852 | .4289 | .3840 | .3474 | .3168 | .2908 | .2683 |
| 0.49 | .7955 | .6599 | .5630 | .4904 | .4340 | .3889 | .3521 | .3213 | .2950 | .2723 |
| 0.50 | .7989 | .6646 | .5682 | .4956 | .4391 | .3939 | .3568 | .3256 | .2993 | .2764 |
| 0.51 | .8023 | .6693 | .5733 | .5009 | .4443 | .3989 | .3617 | .3304 | .3037 | .2805 |
| 0.52 | .8057 | .6740 | .5785 | .5062 | .4496 | .4040 | .3668 | .3351 | .3082 | .2848 |
| 0.53 | .8091 | .6787 | .5837 | .5115 | .4549 | .4092 | .3715 | .3398 | .3127 | .2891 |
| 0.54 | .8125 | .6834 | .5890 | .5169 | .4603 | .4145 | .3766 | .3447 | .3173 | .2935 |
| 0.55 | .8159 | .6882 | .5943 | .5224 | .4657 | .4198 | .3817 | .3496 | .3220 | .2979 |
| 0.56 | .8192 | .6929 | .5996 | .5280 | .4712 | .4252 | .3870 | .3548 | .3268 | .3025 |
| 0.57 | .8226 | .6977 | .6050 | .5336 | .4769 | .4307 | .3923 | .3598 | .3317 | .3072 |
| 0.58 | .8259 | .7025 | .6105 | .5393 | .4826 | .4363 | .3978 | .3650 | .3367 | .3120 |
| 0.59 | .8293 | .7074 | .6160 | .5451 | .4884 | .4421 | .4034 | .3704 | .3419 | .3169 |
| 0.60 | .8326 | .7123 | .6216 | .5510 | .4944 | .4480 | .4091 | .3759 | .3472 | .3219 |

TIME BETWEEN MEASUREMENTS = 20 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1926 | .1784 | .1658 | .1546 | .1446 | .1355 | .1272 | .1197 | .1128 | .1065 |
| 0.31 | .1950 | .1807 | .1680 | .1567 | .1465 | .1373 | .1290 | .1214 | .1144 | .1080 |
| 0.32 | .1976 | .1831 | .1703 | .1588 | .1485 | .1392 | .1308 | .1230 | .1160 | .1095 |
| 0.33 | .2002 | .1856 | .1726 | .1610 | .1506 | .1412 | .1326 | .1248 | .1176 | .1111 |
| 0.34 | .2029 | .1881 | .1750 | .1633 | .1527 | .1432 | .1345 | .1266 | .1194 | .1127 |
| 0.35 | .2057 | .1907 | .1774 | .1656 | .1549 | .1452 | .1364 | .1284 | .1211 | .1144 |
| 0.36 | .2085 | .1934 | .1800 | .1679 | .1571 | .1473 | .1385 | .1303 | .1229 | .1161 |
| 0.37 | .2115 | .1961 | .1826 | .1704 | .1594 | .1495 | .1405 | .1323 | .1248 | .1179 |
| 0.38 | .2145 | .1990 | .1852 | .1729 | .1618 | .1518 | .1426 | .1343 | .1267 | .1197 |
| 0.39 | .2176 | .2019 | .1880 | .1755 | .1643 | .1541 | .1448 | .1364 | .1287 | .1216 |
| 0.40 | .2207 | .2049 | .1908 | .1781 | .1668 | .1565 | .1471 | .1385 | .1307 | .1235 |
| 0.41 | .2240 | .2079 | .1936 | .1809 | .1693 | .1589 | .1494 | .1407 | .1328 | .1255 |
| 0.42 | .2273 | .2110 | .1966 | .1836 | .1720 | .1614 | .1517 | .1429 | .1349 | .1275 |
| 0.43 | .2307 | .2142 | .1996 | .1865 | .1747 | .1639 | .1542 | .1452 | .1371 | .1296 |
| 0.44 | .2341 | .2175 | .2027 | .1894 | .1774 | .1665 | .1566 | .1476 | .1393 | .1317 |
| 0.45 | .2376 | .2208 | .2058 | .1924 | .1802 | .1692 | .1592 | .1500 | .1416 | .1339 |
| 0.46 | .2412 | .2242 | .2090 | .1954 | .1831 | .1719 | .1618 | .1524 | .1439 | .1361 |
| 0.47 | .2449 | .2277 | .2123 | .1985 | .1860 | .1747 | .1644 | .1550 | .1463 | .1384 |
| 0.48 | .2486 | .2312 | .2157 | .2017 | .1890 | .1776 | .1671 | .1575 | .1487 | .1407 |
| 0.49 | .2524 | .2348 | .2191 | .2049 | .1921 | .1805 | .1698 | .1601 | .1512 | .1431 |
| 0.50 | .2563 | .2385 | .2225 | .2082 | .1952 | .1834 | .1726 | .1628 | .1538 | .1455 |
| 0.51 | .2602 | .2422 | .2261 | .2115 | .1984 | .1864 | .1755 | .1655 | .1564 | .1480 |
| 0.52 | .2642 | .2460 | .2297 | .2149 | .2018 | .1895 | .1784 | .1683 | .1590 | .1505 |
| 0.53 | .2683 | .2499 | .2333 | .2184 | .2049 | .1926 | .1814 | .1712 | .1617 | .1531 |
| 0.54 | .2725 | .2538 | .2371 | .2220 | .2083 | .1959 | .1845 | .1741 | .1645 | .1557 |
| 0.55 | .2767 | .2579 | .2409 | .2256 | .2118 | .1991 | .1876 | .1771 | .1674 | .1585 |
| 0.56 | .2811 | .2620 | .2448 | .2294 | .2153 | .2025 | .1908 | .1801 | .1703 | .1613 |
| 0.57 | .2855 | .2662 | .2489 | .2332 | .2189 | .2060 | .1941 | .1833 | .1733 | .1641 |
| 0.58 | .2901 | .2705 | .2530 | .2371 | .2227 | .2095 | .1975 | .1865 | .1764 | .1671 |
| 0.59 | .2948 | .2750 | .2572 | .2411 | .2265 | .2132 | .2010 | .1898 | .1795 | .1701 |
| 0.60 | .2996 | .2796 | .2616 | .2453 | .2305 | .2170 | .2046 | .1933 | .1829 | .1733 |

TIME BETWEEN MEASUREMENTS = 20 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0906 | .0779 | .0679 | .0699 | .0533 | .0479 | .0433 | .0395 | .0363 | .0334 |
| 0.31 | .0918 | .0790 | .0689 | .0607 | .0541 | .0488 | .0440 | .0401 | .0368 | .0339 |
| 0.32 | .0931 | .0802 | .0699 | .0616 | .0549 | .0493 | .0447 | .0407 | .0374 | .0345 |
| 0.33 | .0945 | .0814 | .0710 | .0626 | .0557 | .0501 | .0454 | .0414 | .0380 | .0350 |
| 0.34 | .0959 | .0826 | .0720 | .0635 | .0566 | .0509 | .0461 | .0420 | .0386 | .0356 |
| 0.35 | .0973 | .0839 | .0731 | .0645 | .0575 | .0517 | .0468 | .0427 | .0392 | .0362 |
| 0.36 | .0988 | .0852 | .0743 | .0655 | .0584 | .0525 | .0478 | .0434 | .0398 | .0368 |
| 0.37 | .1003 | .0865 | .0755 | .0666 | .0594 | .0534 | .0484 | .0441 | .0405 | .0374 |
| 0.38 | .1019 | .0879 | .0767 | .0677 | .0603 | .0543 | .0492 | .0449 | .0412 | .0380 |
| 0.39 | .1035 | .0893 | .0780 | .0688 | .0613 | .0552 | .0500 | .0457 | .0419 | .0387 |
| 0.40 | .1052 | .0908 | .0793 | .0700 | .0624 | .0561 | .0509 | .0465 | .0427 | .0394 |
| 0.41 | .1069 | .0923 | .0806 | .0712 | .0635 | .0571 | .0518 | .0473 | .0434 | .0401 |
| 0.42 | .1086 | .0938 | .0820 | .0724 | .0646 | .0581 | .0527 | .0481 | .0442 | .0409 |
| 0.43 | .1105 | .0954 | .0834 | .0736 | .0657 | .0591 | .0536 | .0490 | .0450 | .0416 |
| 0.44 | .1123 | .0970 | .0848 | .0749 | .0669 | .0602 | .0546 | .0499 | .0458 | .0423 |
| 0.45 | .1142 | .0987 | .0863 | .0763 | .0681 | .0613 | .0556 | .0508 | .0467 | .0431 |
| 0.46 | .1161 | .1004 | .0878 | .0776 | .0693 | .0624 | .0566 | .0518 | .0476 | .0439 |
| 0.47 | .1181 | .1021 | .0893 | .0790 | .0706 | .0636 | .0577 | .0527 | .0485 | .0448 |
| 0.48 | .1201 | .1039 | .0909 | .0804 | .0719 | .0647 | .0588 | .0537 | .0494 | .0456 |
| 0.49 | .1222 | .1057 | .0926 | .0819 | .0732 | .0659 | .0599 | .0547 | .0503 | .0465 |
| 0.50 | .1243 | .1076 | .0942 | .0834 | .0745 | .0672 | .0610 | .0558 | .0513 | .0474 |
| 0.51 | .1265 | .1095 | .0959 | .0848 | .0759 | .0685 | .0622 | .0569 | .0523 | .0483 |
| 0.52 | .1287 | .1115 | .0977 | .0865 | .0774 | .0698 | .0634 | .0580 | .0533 | .0493 |
| 0.53 | .1310 | .1135 | .0995 | .0881 | .0788 | .0711 | .0646 | .0591 | .0544 | .0503 |
| 0.54 | .1333 | .1155 | .1013 | .0898 | .0803 | .0725 | .0659 | .0603 | .0555 | .0513 |
| 0.55 | .1357 | .1177 | .1032 | .0915 | .0819 | .0739 | .0672 | .0615 | .0566 | .0523 |
| 0.56 | .1381 | .1198 | .1052 | .0933 | .0835 | .0754 | .0685 | .0627 | .0577 | .0534 |
| 0.57 | .1407 | .1221 | .1072 | .0951 | .0851 | .0769 | .0699 | .0640 | .0589 | .0545 |
| 0.58 | .1433 | .1244 | .1092 | .0969 | .0868 | .0784 | .0714 | .0654 | .0602 | .0557 |
| 0.59 | .1460 | .1268 | .1114 | .0989 | .0886 | .0801 | .0729 | .0668 | .0615 | .0569 |
| 0.60 | .1487 | .1293 | .1136 | .1009 | .0905 | .0818 | .0744 | .0682 | .0628 | .0581 |

TIME BETWEEN MEASUREMENTS = 20 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0295 | .0263 | .0236 | .0214 | .0194 | .0178 | .0163 | .0151 | .0139 | .0129 |
| 0.31 | .0300 | .0267 | .0240 | .0217 | .0197 | .0181 | .0166 | .0153 | .0141 | .0131 |
| 0.32 | .0304 | .0271 | .0244 | .0221 | .0201 | .0183 | .0168 | .0155 | .0144 | .0134 |
| 0.33 | .0308 | .0276 | .0248 | .0224 | .0204 | .0186 | .0171 | .0158 | .0146 | .0136 |
| 0.34 | .0314 | .0280 | .0252 | .0228 | .0207 | .0189 | .0174 | .0160 | .0149 | .0138 |
| 0.35 | .0319 | .0285 | .0256 | .0232 | .0211 | .0193 | .0177 | .0163 | .0151 | .0140 |
| 0.36 | .0325 | .0290 | .0260 | .0236 | .0214 | .0196 | .0180 | .0166 | .0154 | .0143 |
| 0.37 | .0330 | .0295 | .0265 | .0240 | .0218 | .0199 | .0183 | .0169 | .0156 | .0145 |
| 0.38 | .0336 | .0300 | .0269 | .0244 | .0222 | .0203 | .0186 | .0172 | .0159 | .0148 |
| 0.39 | .0342 | .0305 | .0274 | .0248 | .0226 | .0207 | .0190 | .0175 | .0162 | .0151 |
| 0.40 | .0348 | .0310 | .0279 | .0253 | .0230 | .0210 | .0193 | .0178 | .0165 | .0153 |
| 0.41 | .0354 | .0316 | .0284 | .0257 | .0234 | .0214 | .0197 | .0182 | .0168 | .0156 |
| 0.42 | .0361 | .0322 | .0289 | .0262 | .0239 | .0218 | .0200 | .0185 | .0171 | .0159 |
| 0.43 | .0367 | .0328 | .0295 | .0267 | .0243 | .0222 | .0204 | .0188 | .0175 | .0162 |
| 0.44 | .0374 | .0334 | .0300 | .0272 | .0248 | .0227 | .0208 | .0192 | .0178 | .0165 |
| 0.45 | .0381 | .0340 | .0306 | .0277 | .0252 | .0231 | .0212 | .0196 | .0181 | .0169 |
| 0.46 | .0388 | .0347 | .0312 | .0283 | .0257 | .0235 | .0216 | .0200 | .0185 | .0172 |
| 0.47 | .0396 | .0354 | .0318 | .0288 | .0262 | .0240 | .0221 | .0204 | .0189 | .0175 |
| 0.48 | .0404 | .0360 | .0324 | .0294 | .0268 | .0245 | .0225 | .0208 | .0192 | .0179 |
| 0.49 | .0411 | .0367 | .0331 | .0300 | .0273 | .0250 | .0230 | .0212 | .0196 | .0182 |
| 0.50 | .0420 | .0375 | .0337 | .0306 | .0278 | .0255 | .0234 | .0216 | .0200 | .0186 |
| 0.51 | .0428 | .0382 | .0344 | .0312 | .0284 | .0260 | .0238 | .0221 | .0204 | .0190 |
| 0.52 | .0436 | .0390 | .0351 | .0318 | .0290 | .0265 | .0244 | .0225 | .0209 | .0194 |
| 0.53 | .0445 | .0398 | .0358 | .0325 | .0296 | .0271 | .0249 | .0230 | .0213 | .0198 |
| 0.54 | .0454 | .0406 | .0366 | .0331 | .0302 | .0278 | .0254 | .0235 | .0217 | .0202 |
| 0.55 | .0464 | .0414 | .0373 | .0338 | .0308 | .0282 | .0260 | .0240 | .0222 | .0207 |
| 0.56 | .0473 | .0423 | .0381 | .0346 | .0315 | .0288 | .0265 | .0245 | .0227 | .0211 |
| 0.57 | .0483 | .0432 | .0389 | .0353 | .0322 | .0295 | .0271 | .0250 | .0232 | .0216 |
| 0.58 | .0494 | .0442 | .0398 | .0361 | .0329 | .0301 | .0277 | .0256 | .0237 | .0221 |
| 0.59 | .0504 | .0451 | .0407 | .0369 | .0336 | .0308 | .0283 | .0262 | .0243 | .0226 |
| 0.60 | .0516 | .0461 | .0416 | .0377 | .0344 | .0315 | .0290 | .0268 | .0248 | .0231 |

TIME BETWEEN MEASUREMENTS = 20 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0100 | .0080 | .0067 | .0058 | .0051 | .0046 | .0041 | .0037 | .0034 | .0031 |
| 0.31 | .0101 | .0082 | .0068 | .0059 | .0052 | .0046 | .0042 | .0038 | .0035 | .0032 |
| 0.32 | .0103 | .0083 | .0069 | .0060 | .0053 | .0047 | .0042 | .0038 | .0035 | .0032 |
| 0.33 | .0105 | .0084 | .0071 | .0061 | .0054 | .0048 | .0043 | .0039 | .0036 | .0033 |
| 0.34 | .0106 | .0086 | .0072 | .0062 | .0054 | .0049 | .0044 | .0040 | .0036 | .0033 |
| 0.35 | .0108 | .0087 | .0073 | .0063 | .0055 | .0049 | .0045 | .0040 | .0037 | .0034 |
| 0.36 | .0110 | .0089 | .0074 | .0064 | .0056 | .0050 | .0045 | .0041 | .0038 | .0034 |
| 0.37 | .0112 | .0090 | .0076 | .0065 | .0057 | .0051 | .0046 | .0042 | .0038 | .0035 |
| 0.38 | .0114 | .0092 | .0077 | .0066 | .0059 | .0052 | .0047 | .0043 | .0039 | .0036 |
| 0.39 | .0116 | .0094 | .0079 | .0068 | .0060 | .0053 | .0048 | .0044 | .0040 | .0036 |
| 0.40 | .0118 | .0095 | .0080 | .0069 | .0061 | .0054 | .0049 | .0044 | .0040 | .0037 |
| 0.41 | .0120 | .0097 | .0082 | .0070 | .0062 | .0055 | .0050 | .0045 | .0041 | .0038 |
| 0.42 | .0123 | .0099 | .0083 | .0072 | .0063 | .0056 | .0051 | .0046 | .0042 | .0038 |
| 0.43 | .0125 | .0101 | .0085 | .0073 | .0064 | .0057 | .0052 | .0047 | .0043 | .0039 |
| 0.44 | .0128 | .0103 | .0086 | .0075 | .0066 | .0059 | .0053 | .0048 | .0044 | .0040 |
| 0.45 | .0130 | .0105 | .0088 | .0076 | .0067 | .0060 | .0054 | .0049 | .0045 | .0041 |
| 0.48 | .0133 | .0107 | .0090 | .0078 | .0069 | .0061 | .0055 | .0050 | .0046 | .0042 |
| 0.47 | .0135 | .0109 | .0092 | .0079 | .0070 | .0062 | .0056 | .0051 | .0046 | .0043 |
| 0.48 | .0138 | .0112 | .0094 | .0081 | .0071 | .0064 | .0057 | .0052 | .0047 | .0043 |
| 0.49 | .0141 | .0114 | .0096 | .0082 | .0073 | .0065 | .0059 | .0053 | .0048 | .0044 |
| 0.50 | .0144 | .0116 | .0098 | .0084 | .0074 | .0066 | .0060 | .0054 | .0049 | .0045 |
| 0.51 | .0147 | .0119 | .0100 | .0086 | .0076 | .0068 | .0061 | .0055 | .0051 | .0046 |
| 0.52 | .0150 | .0121 | .0102 | .0088 | .0077 | .0069 | .0062 | .0057 | .0052 | .0047 |
| 0.53 | .0153 | .0124 | .0104 | .0090 | .0079 | .0071 | .0064 | .0058 | .0053 | .0048 |
| 0.54 | .0156 | .0127 | .0108 | .0092 | .0081 | .0072 | .0065 | .0059 | .0054 | .0049 |
| 0.55 | .0160 | .0129 | .0109 | .0094 | .0083 | .0074 | .0067 | .0060 | .0055 | .0050 |
| 0.56 | .0163 | .0132 | .0111 | .0096 | .0085 | .0075 | .0068 | .0062 | .0058 | .0052 |
| 0.57 | .0167 | .0135 | .0114 | .0098 | .0086 | .0077 | .0070 | .0063 | .0058 | .0053 |
| 0.58 | .0171 | .0138 | .0116 | .0100 | .0088 | .0079 | .0071 | .0065 | .0059 | .0054 |
| 0.59 | .0175 | .0142 | .0119 | .0103 | .0091 | .0081 | .0073 | .0066 | .0060 | .0055 |
| 0.60 | .0179 | .0145 | .0122 | .0105 | .0093 | .0083 | .0075 | .0068 | .0062 | .0057 |

TIME BETWEEN MEASUREMENTS = 50 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .3713 | .3483 | .3273 | .3082 | .2907 | .2747 | .2600 | .2464 | .2339 | .2223 |
| 0.31 | .3744 | .3513 | .3302 | .3110 | .2934 | .2773 | .2624 | .2488 | .2362 | .2245 |
| 0.32 | .3775 | .3543 | .3331 | .3138 | .2961 | .2799 | .2649 | .2512 | .2385 | .2268 |
| 0.33 | .3807 | .3573 | .3360 | .3166 | .2988 | .2825 | .2675 | .2536 | .2408 | .2291 |
| 0.34 | .3838 | .3604 | .3390 | .3195 | .3016 | .2851 | .2700 | .2561 | .2432 | .2314 |
| 0.35 | .3871 | .3635 | .3420 | .3223 | .3043 | .2878 | .2726 | .2586 | .2457 | .2337 |
| 0.36 | .3903 | .3666 | .3450 | .3253 | .3072 | .2906 | .2753 | .2612 | .2481 | .2361 |
| 0.37 | .3936 | .3698 | .3481 | .3282 | .3100 | .2933 | .2779 | .2637 | .2505 | .2385 |
| 0.38 | .3969 | .3730 | .3512 | .3313 | .3130 | .2961 | .2807 | .2664 | .2532 | .2410 |
| 0.39 | .4003 | .3763 | .3544 | .3343 | .3159 | .2990 | .2834 | .2691 | .2558 | .2435 |
| 0.40 | .4037 | .3796 | .3576 | .3374 | .3189 | .3019 | .2863 | .2718 | .2585 | .2461 |
| 0.41 | .4072 | .3830 | .3609 | .3406 | .3220 | .3049 | .2892 | .2746 | .2612 | .2488 |
| 0.42 | .4107 | .3864 | .3642 | .3439 | .3252 | .3080 | .2921 | .2775 | .2640 | .2514 |
| 0.43 | .4143 | .3899 | .3676 | .3471 | .3283 | .3111 | .2951 | .2804 | .2668 | .2542 |
| 0.44 | .4180 | .3935 | .3711 | .3505 | .3316 | .3142 | .2982 | .2834 | .2697 | .2570 |
| 0.45 | .4217 | .3971 | .3745 | .3539 | .3349 | .3174 | .3013 | .2864 | .2727 | .2599 |
| 0.46 | .4255 | .4008 | .3781 | .3574 | .3383 | .3207 | .3045 | .2898 | .2757 | .2629 |
| 0.47 | .4293 | .4045 | .3818 | .3609 | .3418 | .3241 | .3078 | .2927 | .2788 | .2659 |
| 0.48 | .4331 | .4083 | .3855 | .3645 | .3453 | .3275 | .3111 | .2960 | .2820 | .2690 |
| 0.49 | .4371 | .4121 | .3892 | .3682 | .3489 | .3310 | .3148 | .2993 | .2852 | .2722 |
| 0.50 | .4411 | .4160 | .3931 | .3720 | .3525 | .3346 | .3181 | .3027 | .2886 | .2754 |
| 0.51 | .4451 | .4200 | .3969 | .3758 | .3562 | .3382 | .3216 | .3062 | .2920 | .2788 |
| 0.52 | .4492 | .4240 | .4009 | .3796 | .3600 | .3420 | .3252 | .3098 | .2955 | .2822 |
| 0.53 | .4533 | .4281 | .4049 | .3836 | .3639 | .3457 | .3290 | .3134 | .2990 | .2857 |
| 0.54 | .4575 | .4322 | .4090 | .3876 | .3678 | .3496 | .3328 | .3171 | .3027 | .2892 |
| 0.55 | .4618 | .4364 | .4131 | .3917 | .3719 | .3536 | .3366 | .3210 | .3064 | .2929 |
| 0.56 | .4661 | .4407 | .4174 | .3958 | .3760 | .3578 | .3406 | .3249 | .3103 | .2967 |
| 0.57 | .4705 | .4451 | .4217 | .4001 | .3802 | .3617 | .3447 | .3289 | .3142 | .3006 |
| 0.58 | .4750 | .4495 | .4261 | .4044 | .3845 | .3660 | .3489 | .3330 | .3183 | .3046 |
| 0.59 | .4795 | .4540 | .4306 | .4089 | .3889 | .3704 | .3532 | .3373 | .3225 | .3087 |
| 0.60 | .4842 | .4587 | .4352 | .4135 | .3935 | .3749 | .3577 | .3417 | .3269 | .3131 |

TIME BETWEEN MEASUREMENTS = 50 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1925 | .1687 | .1494 | .1336 | .1205 | .1095 | .1001 | .0921 | .0851 | .0790 |
| 0.31 | .1945 | .1705 | .1511 | .1351 | .1219 | .1108 | .1013 | .0932 | .0862 | .0800 |
| 0.32 | .1966 | .1724 | .1528 | .1367 | .1234 | .1121 | .1026 | .0944 | .0873 | .0811 |
| 0.33 | .1986 | .1743 | .1545 | .1383 | .1248 | .1135 | .1039 | .0956 | .0884 | .0821 |
| 0.34 | .2007 | .1762 | .1563 | .1399 | .1263 | .1149 | .1052 | .0968 | .0896 | .0832 |
| 0.35 | .2029 | .1781 | .1581 | .1416 | .1279 | .1163 | .1065 | .0981 | .0907 | .0843 |
| 0.36 | .2051 | .1801 | .1599 | .1433 | .1294 | .1178 | .1079 | .0994 | .0919 | .0854 |
| 0.37 | .2073 | .1822 | .1618 | .1450 | .1310 | .1193 | .1093 | .1007 | .0932 | .0866 |
| 0.38 | .2095 | .1842 | .1637 | .1468 | .1327 | .1208 | .1107 | .1020 | .0944 | .0878 |
| 0.39 | .2118 | .1864 | .1656 | .1486 | .1344 | .1224 | .1122 | .1034 | .0957 | .0890 |
| 0.40 | .2142 | .1885 | .1676 | .1504 | .1361 | .1240 | .1137 | .1048 | .0971 | .0902 |
| 0.41 | .2166 | .1908 | .1697 | .1524 | .1379 | .1257 | .1153 | .1063 | .0984 | .0915 |
| 0.42 | .2191 | .1930 | .1718 | .1543 | .1397 | .1274 | .1169 | .1078 | .0998 | .0929 |
| 0.43 | .2216 | .1954 | .1740 | .1563 | .1416 | .1292 | .1185 | .1093 | .1013 | .0942 |
| 0.44 | .2242 | .1978 | .1762 | .1584 | .1436 | .1310 | .1202 | .1109 | .1028 | .0957 |
| 0.45 | .2269 | .2003 | .1785 | .1606 | .1456 | .1329 | .1220 | .1126 | .1044 | .0971 |
| 0.46 | .2296 | .2028 | .1809 | .1628 | .1476 | .1348 | .1238 | .1143 | .1060 | .0986 |
| 0.47 | .2324 | .2054 | .1833 | .1651 | .1497 | .1368 | .1257 | .1161 | .1076 | .1002 |
| 0.48 | .2353 | .2081 | .1858 | .1674 | .1519 | .1388 | .1276 | .1178 | .1094 | .1018 |
| 0.49 | .2383 | .2109 | .1884 | .1698 | .1542 | .1410 | .1296 | .1198 | .1111 | .1035 |
| 0.50 | .2413 | .2137 | .1911 | .1723 | .1565 | .1432 | .1317 | .1217 | .1130 | .1053 |
| 0.51 | .2444 | .2166 | .1938 | .1749 | .1590 | .1454 | .1338 | .1237 | .1149 | .1071 |
| 0.52 | .2476 | .2196 | .1966 | .1775 | .1615 | .1478 | .1360 | .1258 | .1169 | .1089 |
| 0.53 | .2509 | .2227 | .1995 | .1802 | .1640 | .1502 | .1383 | .1280 | .1189 | .1109 |
| 0.54 | .2543 | .2259 | .2025 | .1831 | .1667 | .1527 | .1407 | .1302 | .1210 | .1129 |
| 0.55 | .2578 | .2292 | .2056 | .1860 | .1694 | .1553 | .1432 | .1326 | .1232 | .1150 |
| 0.56 | .2613 | .2325 | .2088 | .1890 | .1723 | .1580 | .1457 | .1350 | .1255 | .1172 |
| 0.57 | .2650 | .2361 | .2121 | .1922 | .1753 | .1609 | .1484 | .1375 | .1279 | .1194 |
| 0.58 | .2689 | .2397 | .2156 | .1954 | .1784 | .1639 | .1512 | .1401 | .1304 | .1218 |
| 0.59 | .2728 | .2435 | .2192 | .1988 | .1816 | .1669 | .1541 | .1429 | .1330 | .1243 |
| 0.60 | .2770 | .2474 | .2229 | .2024 | .1850 | .1701 | .1571 | .1458 | .1358 | .1269 |

TIME BETWEEN MEASUREMENTS = 50 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0704 | .0532 | .0571 | .0619 | .0474 | .0435 | .0401 | .0371 | .0345 | .0321 |
| 0.31 | .0713 | .0640 | .0579 | .0526 | .0481 | .0441 | .0407 | .0376 | .0349 | .0326 |
| 0.32 | .0722 | .0649 | .0686 | .0533 | .0487 | .0447 | .0412 | .0381 | .0354 | .0330 |
| 0.33 | .0732 | .0657 | .0594 | .0540 | .0494 | .0453 | .0418 | .0387 | .0359 | .0335 |
| 0.34 | .0741 | .0666 | .0602 | .0548 | .0501 | .0460 | .0424 | .0392 | .0364 | .0340 |
| 0.35 | .0751 | .0675 | .0611 | .0556 | .0508 | .0466 | .0430 | .0398 | .0370 | .0345 |
| 0.36 | .0762 | .0684 | .0619 | .0563 | .0515 | .0473 | .0436 | .0404 | .0375 | .0350 |
| 0.37 | .0772 | .0694 | .0628 | .0571 | .0522 | .0480 | .0442 | .0410 | .0381 | .0355 |
| 0.38 | .0783 | .0704 | .0637 | .0580 | .0530 | .0487 | .0449 | .0416 | .0386 | .0360 |
| 0.39 | .0794 | .0714 | .0646 | .0588 | .0538 | .0494 | .0456 | .0422 | .0392 | .0366 |
| 0.40 | .0805 | .0724 | .0656 | .0597 | .0548 | .0502 | .0463 | .0428 | .0398 | .0371 |
| 0.41 | .0817 | .0735 | .0665 | .0606 | .0554 | .0509 | .0470 | .0435 | .0404 | .0377 |
| 0.42 | .0829 | .0746 | .0676 | .0615 | .0563 | .0517 | .0477 | .0442 | .0411 | .0383 |
| 0.43 | .0842 | .0757 | .0688 | .0625 | .0572 | .0526 | .0485 | .0449 | .0418 | .0390 |
| 0.44 | .0855 | .0769 | .0697 | .0635 | .0581 | .0534 | .0493 | .0457 | .0425 | .0396 |
| 0.45 | .0868 | .0782 | .0708 | .0645 | .0591 | .0543 | .0501 | .0464 | .0432 | .0403 |
| 0.46 | .0882 | .0794 | .0720 | .0656 | .0600 | .0552 | .0510 | .0472 | .0439 | .0410 |
| 0.47 | .0896 | .0807 | .0732 | .0667 | .0611 | .0562 | .0518 | .0481 | .0447 | .0417 |
| 0.48 | .0911 | .0821 | .0744 | .0678 | .0621 | .0571 | .0528 | .0489 | .0455 | .0425 |
| 0.49 | .0926 | .0835 | .0757 | .0690 | .0632 | .0582 | .0537 | .0498 | .0463 | .0433 |
| 0.50 | .0942 | .0849 | .0771 | .0703 | .0644 | .0592 | .0547 | .0507 | .0472 | .0441 |
| 0.51 | .0959 | .0865 | .0784 | .0715 | .0656 | .0603 | .0557 | .0517 | .0481 | .0449 |
| 0.52 | .0978 | .0880 | .0799 | .0729 | .0669 | .0615 | .0568 | .0527 | .0490 | .0458 |
| 0.53 | .0993 | .0897 | .0814 | .0743 | .0681 | .0627 | .0579 | .0537 | .0500 | .0467 |
| 0.54 | .1012 | .0913 | .0829 | .0757 | .0694 | .0639 | .0591 | .0548 | .0510 | .0477 |
| 0.55 | .1031 | .0931 | .0846 | .0772 | .0708 | .0652 | .0603 | .0559 | .0521 | .0487 |
| 0.56 | .1051 | .0949 | .0863 | .0788 | .0723 | .0666 | .0616 | .0571 | .0532 | .0497 |
| 0.57 | .1072 | .0968 | .0880 | .0804 | .0738 | .0680 | .0629 | .0584 | .0544 | .0508 |
| 0.58 | .1094 | .0989 | .0899 | .0821 | .0754 | .0695 | .0643 | .0597 | .0556 | .0520 |
| 0.59 | .1118 | .1010 | .0918 | .0839 | .0770 | .0710 | .0657 | .0610 | .0569 | .0532 |
| 0.60 | .1141 | .1032 | .0939 | .0859 | .0788 | .0727 | .0673 | .0625 | .0583 | .0545 |

Scanned by: SouthernRadiation.com

TIME BETWEEN MEASUREMENTS = 50 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0250 | .0203 | .0172 | .0149 | .0131 | .0117 | .0106 | .0096 | .0088 | .0080 |
| 0.31 | .0253 | .0206 | .0174 | .0151 | .0133 | .0119 | .0108 | .0098 | .0089 | .0082 |
| 0.32 | .0257 | .0209 | .0177 | .0153 | .0135 | .0121 | .0109 | .0099 | .0091 | .0083 |
| 0.33 | .0261 | .0212 | .0179 | .0155 | .0137 | .0123 | .0111 | .0101 | .0092 | .0084 |
| 0.34 | .0265 | .0216 | .0182 | .0158 | .0139 | .0125 | .0113 | .0102 | .0093 | .0085 |
| 0.35 | .0269 | .0219 | .0185 | .0160 | .0142 | .0127 | .0114 | .0104 | .0095 | .0087 |
| 0.36 | .0273 | .0222 | .0188 | .0163 | .0144 | .0129 | .0116 | .0106 | .0096 | .0088 |
| 0.37 | .0277 | .0226 | .0191 | .0165 | .0146 | .0131 | .0118 | .0107 | .0098 | .0090 |
| 0.38 | .0281 | .0229 | .0194 | .0168 | .0148 | .0133 | .0120 | .0109 | .0099 | .0091 |
| 0.39 | .0285 | .0233 | .0197 | .0171 | .0151 | .0135 | .0122 | .0111 | .0101 | .0093 |
| 0.40 | .0290 | .0237 | .0200 | .0173 | .0153 | .0137 | .0124 | .0113 | .0103 | .0094 |
| 0.41 | .0295 | .0240 | .0203 | .0176 | .0156 | .0140 | .0126 | .0115 | .0105 | .0096 |
| 0.42 | .0299 | .0245 | .0207 | .0179 | .0159 | .0142 | .0128 | .0117 | .0106 | .0097 |
| 0.43 | .0304 | .0249 | .0210 | .0183 | .0161 | .0145 | .0131 | .0119 | .0108 | .0099 |
| 0.44 | .0310 | .0253 | .0214 | .0186 | .0164 | .0147 | .0133 | .0121 | .0110 | .0101 |
| 0.45 | .0315 | .0258 | .0218 | .0189 | .0167 | .0150 | .0135 | .0123 | .0112 | .0103 |
| 0.46 | .0321 | .0262 | .0222 | .0193 | .0170 | .0153 | .0138 | .0125 | .0114 | .0105 |
| 0.47 | .0327 | .0267 | .0226 | .0196 | .0174 | .0156 | .0141 | .0128 | .0117 | .0107 |
| 0.48 | .0333 | .0272 | .0230 | .0200 | .0177 | .0159 | .0143 | .0130 | .0119 | .0109 |
| 0.49 | .0339 | .0277 | .0235 | .0204 | .0181 | .0162 | .0146 | .0133 | .0121 | .0111 |
| 0.50 | .0348 | .0283 | .0240 | .0208 | .0184 | .0165 | .0149 | .0136 | .0124 | .0114 |
| 0.51 | .0352 | .0289 | .0245 | .0213 | .0188 | .0169 | .0153 | .0139 | .0127 | .0116 |
| 0.52 | .0359 | .0295 | .0250 | .0217 | .0192 | .0172 | .0156 | .0142 | .0129 | .0118 |
| 0.53 | .0367 | .0301 | .0255 | .0222 | .0197 | .0176 | .0159 | .0145 | .0132 | .0121 |
| 0.54 | .0375 | .0307 | .0261 | .0227 | .0201 | .0180 | .0163 | .0148 | .0135 | .0124 |
| 0.55 | .0383 | .0314 | .0267 | .0232 | .0206 | .0184 | .0167 | .0152 | .0138 | .0127 |
| 0.56 | .0391 | .0321 | .0273 | .0237 | .0210 | .0189 | .0171 | .0155 | .0142 | .0130 |
| 0.57 | .0400 | .0329 | .0279 | .0243 | .0216 | .0193 | .0175 | .0159 | .0145 | .0133 |
| 0.58 | .0410 | .0337 | .0286 | .0249 | .0221 | .0198 | .0179 | .0163 | .0149 | .0136 |
| 0.59 | .0419 | .0345 | .0293 | .0256 | .0227 | .0203 | .0184 | .0167 | .0153 | .0140 |
| 0.60 | .0430 | .0354 | .0301 | .0262 | .0233 | .0209 | .0189 | .0172 | .0157 | .0144 |

TIME BETWEEN MEASUREMENTS = 60 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .8932 | .8063 | .7342 | .6730 | .6204 | .5744 | .5338 | .4976 | .4651 | .4357 |
| 0.31 | .8945 | .8085 | .7369 | .6760 | .6235 | .5776 | .5370 | .5008 | .4682 | .4388 |
| 0.32 | .8959 | .8107 | .7396 | .6790 | .6267 | .5808 | .5403 | .5040 | .4714 | .4419 |
| 0.33 | .8972 | .8129 | .7423 | .6821 | .6299 | .5841 | .5435 | .5072 | .4745 | .4450 |
| 0.34 | .8986 | .8151 | .7450 | .6851 | .6331 | .5874 | .5468 | .5105 | .4777 | .4481 |
| 0.35 | .8999 | .8173 | .7478 | .6881 | .6363 | .5907 | .5501 | .5138 | .4810 | .4513 |
| 0.36 | .9013 | .8195 | .7505 | .6912 | .6395 | .5940 | .5534 | .5171 | .4842 | .4545 |
| 0.37 | .9026 | .8218 | .7532 | .6943 | .6428 | .5973 | .5568 | .5204 | .4875 | .4577 |
| 0.38 | .9040 | .8240 | .7560 | .6974 | .6460 | .6007 | .5602 | .5238 | .4909 | .4610 |
| 0.39 | .9053 | .8262 | .7588 | .7005 | .6493 | .6041 | .5636 | .5272 | .4942 | .4643 |
| 0.40 | .9067 | .8284 | .7616 | .7036 | .6526 | .6075 | .5670 | .5306 | .4976 | .4677 |
| 0.41 | .9081 | .8307 | .7643 | .7067 | .6560 | .6109 | .5705 | .5341 | .5011 | .4711 |
| 0.42 | .9094 | .8329 | .7671 | .7098 | .6593 | .6143 | .5740 | .5376 | .5046 | .4745 |
| 0.43 | .9108 | .8351 | .7699 | .7130 | .6627 | .6176 | .5775 | .5411 | .5081 | .4780 |
| 0.44 | .9121 | .8373 | .7727 | .7161 | .6660 | .6213 | .5811 | .5447 | .5116 | .4815 |
| 0.45 | .9135 | .8396 | .7755 | .7193 | .6694 | .6248 | .5846 | .5483 | .5152 | .4850 |
| 0.46 | .9148 | .8418 | .7783 | .7224 | .6728 | .6283 | .5882 | .5519 | .5188 | .4886 |
| 0.47 | .9161 | .8440 | .7811 | .7256 | .6762 | .6318 | .5918 | .5555 | .5225 | .4923 |
| 0.48 | .9174 | .8462 | .7838 | .7287 | .6796 | .6354 | .5954 | .5592 | .5261 | .4959 |
| 0.49 | .9187 | .8483 | .7866 | .7319 | .6830 | .6389 | .5989 | .5629 | .5299 | .4996 |
| 0.50 | .9200 | .8505 | .7894 | .7350 | .6864 | .6425 | .6028 | .5668 | .5336 | .5034 |
| 0.51 | .9213 | .8527 | .7921 | .7382 | .6898 | .6461 | .6065 | .5704 | .5374 | .5072 |
| 0.52 | .9226 | .8546 | .7948 | .7413 | .6932 | .6497 | .6102 | .5742 | .5413 | .5111 |
| 0.53 | .9238 | .8569 | .7976 | .7444 | .6966 | .6533 | .6140 | .5780 | .5452 | .5150 |
| 0.54 | .9251 | .8590 | .8003 | .7476 | .7001 | .6570 | .6178 | .5819 | .5491 | .5190 |
| 0.55 | .9263 | .8611 | .8030 | .7508 | .7036 | .6607 | .6216 | .5859 | .5532 | .5232 |
| 0.56 | .9275 | .8633 | .8057 | .7540 | .7071 | .6644 | .6258 | .5900 | .5574 | .5274 |
| 0.57 | .9288 | .8654 | .8085 | .7572 | .7106 | .6683 | .6296 | .5941 | .5616 | .5317 |
| 0.58 | .9300 | .8675 | .8113 | .7605 | .7143 | .6722 | .6337 | .5984 | .5660 | .5362 |
| 0.59 | .9312 | .8696 | .8141 | .7638 | .7180 | .6762 | .6380 | .6029 | .5706 | .5409 |
| 0.60 | .9325 | .8718 | .8170 | .7672 | .7219 | .6804 | .6424 | .6075 | .5754 | .5458 |

TIME BETWEEN MEASUREMENTS = 60 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .8932 | .8063 | .7342 | .6730 | .6204 | .5744 | .5338 | .4976 | .4651 | .4357 |
| 0.31 | .8945 | .8065 | .7368 | .6760 | .6235 | .5776 | .5370 | .5008 | .4682 | .4388 |
| 0.32 | .8959 | .8107 | .7396 | .6790 | .6267 | .5808 | .5403 | .5040 | .4714 | .4419 |
| 0.33 | .8972 | .8129 | .7423 | .6821 | .6299 | .5841 | .5435 | .5072 | .4745 | .4450 |
| 0.34 | .8986 | .8151 | .7450 | .6851 | .6331 | .5874 | .5468 | .5105 | .4777 | .4481 |
| 0.35 | .8999 | .8173 | .7478 | .6881 | .6363 | .5907 | .5501 | .5138 | .4810 | .4513 |
| 0.36 | .9013 | .8195 | .7505 | .6912 | .6395 | .5940 | .5534 | .5171 | .4842 | .4545 |
| 0.37 | .9026 | .8218 | .7532 | .6943 | .6428 | .5973 | .5568 | .5204 | .4875 | .4577 |
| 0.38 | .9040 | .8240 | .7560 | .6974 | .6460 | .6007 | .5602 | .5238 | .4909 | .4610 |
| 0.39 | .9053 | .8262 | .7588 | .7005 | .6493 | .6041 | .5636 | .5272 | .4942 | .4643 |
| 0.40 | .9067 | .8284 | .7616 | .7036 | .6526 | .6075 | .5670 | .5308 | .4976 | .4677 |
| 0.41 | .9081 | .8307 | .7643 | .7067 | .6560 | .6109 | .5705 | .5341 | .5011 | .4711 |
| 0.42 | .9094 | .8329 | .7671 | .7098 | .6593 | .6143 | .5740 | .5376 | .5046 | .4745 |
| 0.43 | .9108 | .8351 | .7699 | .7130 | .6627 | .6178 | .5775 | .5411 | .5081 | .4780 |
| 0.44 | .9121 | .8373 | .7727 | .7161 | .6660 | .6213 | .5811 | .5447 | .5118 | .4815 |
| 0.45 | .9135 | .8396 | .7755 | .7193 | .6694 | .6248 | .5846 | .5483 | .5152 | .4850 |
| 0.46 | .9148 | .8418 | .7783 | .7224 | .6728 | .6283 | .5882 | .5519 | .5188 | .4886 |
| 0.47 | .9161 | .8440 | .7811 | .7256 | .6762 | .6318 | .5918 | .5555 | .5225 | .4923 |
| 0.48 | .9174 | .8462 | .7838 | .7287 | .6796 | .6354 | .5954 | .5592 | .5261 | .4959 |
| 0.49 | .9187 | .8483 | .7866 | .7319 | .6830 | .6389 | .5989 | .5629 | .5299 | .4996 |
| 0.50 | .9200 | .8505 | .7894 | .7350 | .6864 | .6425 | .6028 | .5668 | .5336 | .5034 |
| 0.51 | .9213 | .8527 | .7921 | .7382 | .6898 | .6461 | .6065 | .5704 | .5374 | .5072 |
| 0.52 | .9226 | .8548 | .7948 | .7413 | .6932 | .6497 | .6102 | .5742 | .5413 | .5111 |
| 0.53 | .9239 | .8569 | .7976 | .7444 | .6966 | .6533 | .6140 | .5780 | .5452 | .5150 |
| 0.54 | .9251 | .8590 | .8003 | .7476 | .7001 | .6570 | .6178 | .5819 | .5491 | .5190 |
| 0.55 | .9263 | .8611 | .8030 | .7508 | .7036 | .6607 | .6218 | .5859 | .5532 | .5232 |
| 0.56 | .9275 | .8633 | .8057 | .7540 | .7071 | .6644 | .6258 | .5900 | .5574 | .5274 |
| 0.57 | .9288 | .8654 | .8085 | .7572 | .7106 | .6683 | .6296 | .5941 | .5616 | .5317 |
| 0.58 | .9300 | .8675 | .8113 | .7605 | .7143 | .6722 | .6337 | .5984 | .5660 | .5362 |
| 0.59 | .9312 | .8686 | .8141 | .7638 | .7180 | .6762 | .6380 | .6029 | .5706 | .5409 |
| 0.60 | .9325 | .8718 | .8170 | .7672 | .7219 | .6804 | .6424 | .6075 | .5754 | .5458 |

TIME BETWEEN MEASUREMENTS = 60 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .4091 | .3848 | .3627 | .3423 | .3237 | .3065 | .2907 | .2761 | .2627 | .2502 |
| 0.31 | .4121 | .3877 | .3655 | .3451 | .3263 | .3091 | .2932 | .2786 | .2650 | .2525 |
| 0.32 | .4151 | .3906 | .3683 | .3478 | .3290 | .3117 | .2957 | .2810 | .2674 | .2548 |
| 0.33 | .4181 | .3936 | .3712 | .3506 | .3317 | .3143 | .2983 | .2835 | .2698 | .2571 |
| 0.34 | .4212 | .3966 | .3741 | .3534 | .3344 | .3170 | .3009 | .2860 | .2722 | .2595 |
| 0.35 | .4243 | .3996 | .3770 | .3563 | .3372 | .3197 | .3035 | .2886 | .2747 | .2619 |
| 0.36 | .4274 | .4026 | .3800 | .3592 | .3401 | .3224 | .3062 | .2912 | .2773 | .2644 |
| 0.37 | .4306 | .4057 | .3830 | .3621 | .3429 | .3252 | .3089 | .2938 | .2799 | .2669 |
| 0.38 | .4338 | .4089 | .3861 | .3651 | .3458 | .3281 | .3117 | .2965 | .2825 | .2695 |
| 0.39 | .4370 | .4121 | .3892 | .3681 | .3488 | .3310 | .3145 | .2993 | .2852 | .2721 |
| 0.40 | .4403 | .4153 | .3923 | .3712 | .3518 | .3339 | .3174 | .3021 | .2879 | .2748 |
| 0.41 | .4436 | .4186 | .3955 | .3744 | .3549 | .3369 | .3203 | .3050 | .2907 | .2775 |
| 0.42 | .4470 | .4219 | .3988 | .3776 | .3580 | .3400 | .3233 | .3079 | .2936 | .2804 |
| 0.43 | .4504 | .4252 | .4021 | .3808 | .3612 | .3431 | .3264 | .3109 | .2965 | .2832 |
| 0.44 | .4539 | .4287 | .4055 | .3841 | .3644 | .3463 | .3295 | .3139 | .2995 | .2861 |
| 0.45 | .4574 | .4321 | .4089 | .3875 | .3677 | .3495 | .3327 | .3170 | .3026 | .2891 |
| 0.46 | .4610 | .4356 | .4123 | .3909 | .3711 | .3528 | .3359 | .3202 | .3057 | .2922 |
| 0.47 | .4646 | .4392 | .4159 | .3943 | .3745 | .3562 | .3392 | .3235 | .3089 | .2954 |
| 0.48 | .4682 | .4428 | .4194 | .3979 | .3780 | .3596 | .3426 | .3268 | .3122 | .2986 |
| 0.49 | .4719 | .4465 | .4231 | .4015 | .3815 | .3631 | .3460 | .3302 | .3155 | .3018 |
| 0.50 | .4757 | .4502 | .4268 | .4051 | .3852 | .3667 | .3496 | .3337 | .3189 | .3052 |
| 0.51 | .4795 | .4540 | .4305 | .4089 | .3889 | .3703 | .3532 | .3373 | .3225 | .3087 |
| 0.52 | .4834 | .4579 | .4344 | .4127 | .3927 | .3741 | .3569 | .3409 | .3261 | .3123 |
| 0.53 | .4873 | .4618 | .4383 | .4166 | .3965 | .3780 | .3607 | .3447 | .3298 | .3160 |
| 0.54 | .4914 | .4659 | .4424 | .4206 | .4005 | .3819 | .3647 | .3486 | .3337 | .3198 |
| 0.55 | .4955 | .4700 | .4465 | .4248 | .4047 | .3860 | .3687 | .3527 | .3377 | .3238 |
| 0.56 | .4996 | .4743 | .4508 | .4291 | .4090 | .3903 | .3730 | .3569 | .3419 | .3279 |
| 0.57 | .5042 | .4788 | .4553 | .4336 | .4134 | .3948 | .3774 | .3613 | .3463 | .3323 |
| 0.58 | .5087 | .4834 | .4599 | .4382 | .4181 | .3994 | .3821 | .3659 | .3509 | .3368 |
| 0.59 | .5135 | .4882 | .4648 | .4431 | .4230 | .4043 | .3870 | .3708 | .3557 | .3417 |
| 0.60 | .5185 | .4933 | .4700 | .4483 | .4282 | .4096 | .3922 | .3760 | .3609 | .3468 |

TIME BETWEEN MEASUREMENTS = 60 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .2179 | .1920 | .1708 | .1534 | .1369 | .1266 | .1161 | .1071 | .0992 | .0922 |
| 0.31 | .2200 | .1939 | .1726 | .1551 | .1404 | .1280 | .1175 | .1083 | .1004 | .0934 |
| 0.32 | .2222 | .1959 | .1744 | .1568 | .1420 | .1295 | .1189 | .1096 | .1016 | .0945 |
| 0.33 | .2243 | .1979 | .1763 | .1585 | .1436 | .1310 | .1203 | .1110 | .1029 | .0957 |
| 0.34 | .2265 | .1999 | .1782 | .1603 | .1453 | .1326 | .1217 | .1123 | .1041 | .0969 |
| 0.35 | .2288 | .2020 | .1801 | .1621 | .1470 | .1342 | .1232 | .1137 | .1055 | .0982 |
| 0.36 | .2311 | .2041 | .1821 | .1639 | .1487 | .1358 | .1247 | .1152 | .1068 | .0994 |
| 0.37 | .2334 | .2063 | .1842 | .1658 | .1505 | .1375 | .1263 | .1167 | .1082 | .1008 |
| 0.38 | .2358 | .2085 | .1862 | .1678 | .1523 | .1392 | .1279 | .1182 | .1096 | .1021 |
| 0.39 | .2382 | .2108 | .1884 | .1698 | .1542 | .1409 | .1296 | .1197 | .1111 | .1035 |
| 0.40 | .2407 | .2132 | .1906 | .1718 | .1561 | .1427 | .1313 | .1213 | .1126 | .1049 |
| 0.41 | .2433 | .2156 | .1928 | .1739 | .1581 | .1448 | .1330 | .1230 | .1142 | .1064 |
| 0.42 | .2459 | .2180 | .1951 | .1761 | .1601 | .1465 | .1349 | .1247 | .1158 | .1079 |
| 0.43 | .2486 | .2205 | .1975 | .1783 | .1622 | .1485 | .1367 | .1265 | .1175 | .1095 |
| 0.44 | .2514 | .2231 | .1999 | .1806 | .1644 | .1508 | .1387 | .1283 | .1192 | .1112 |
| 0.45 | .2542 | .2258 | .2024 | .1830 | .1666 | .1527 | .1406 | .1302 | .1210 | .1128 |
| 0.46 | .2571 | .2285 | .2050 | .1854 | .1689 | .1548 | .1427 | .1321 | .1228 | .1146 |
| 0.47 | .2601 | .2313 | .2077 | .1879 | .1713 | .1571 | .1448 | .1341 | .1247 | .1164 |
| 0.48 | .2631 | .2342 | .2104 | .1905 | .1737 | .1594 | .1470 | .1362 | .1267 | .1182 |
| 0.49 | .2663 | .2372 | .2132 | .1932 | .1763 | .1618 | .1493 | .1383 | .1287 | .1202 |
| 0.50 | .2695 | .2403 | .2161 | .1960 | .1789 | .1643 | .1518 | .1406 | .1308 | .1222 |
| 0.51 | .2728 | .2434 | .2192 | .1988 | .1818 | .1668 | .1541 | .1429 | .1330 | .1243 |
| 0.52 | .2762 | .2467 | .2223 | .2018 | .1844 | .1695 | .1566 | .1453 | .1353 | .1264 |
| 0.53 | .2798 | .2501 | .2255 | .2049 | .1873 | .1723 | .1592 | .1478 | .1377 | .1287 |
| 0.54 | .2835 | .2538 | .2289 | .2081 | .1904 | .1752 | .1620 | .1504 | .1402 | .1311 |
| 0.55 | .2873 | .2573 | .2324 | .2114 | .1936 | .1782 | .1649 | .1532 | .1428 | .1336 |
| 0.56 | .2913 | .2612 | .2361 | .2150 | .1970 | .1815 | .1680 | .1561 | .1458 | .1362 |
| 0.57 | .2955 | .2652 | .2400 | .2187 | .2005 | .1848 | .1712 | .1592 | .1485 | .1390 |
| 0.58 | .2999 | .2695 | .2441 | .2226 | .2043 | .1884 | .1746 | .1624 | .1516 | .1420 |
| 0.59 | .3047 | .2741 | .2485 | .2269 | .2083 | .1923 | .1783 | .1659 | .1550 | .1452 |
| 0.60 | .3097 | .2790 | .2532 | .2314 | .2127 | .1964 | .1823 | .1697 | .1586 | .1486 |

TIME BETWEEN MEASUREMENTS = 60 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0823 | .0741 | .0671 | .0611 | .0659 | .0614 | .0474 | .0439 | .0408 | .0380 |
| 0.31 | .0834 | .0750 | .0679 | .0619 | .0666 | .0520 | .0480 | .0445 | .0413 | .0386 |
| 0.32 | .0844 | .0760 | .0688 | .0627 | .0674 | .0527 | .0487 | .0451 | .0419 | .0391 |
| 0.33 | .0855 | .0770 | .0697 | .0635 | .0681 | .0534 | .0493 | .0457 | .0425 | .0396 |
| 0.34 | .0866 | .0780 | .0707 | .0644 | .0689 | .0542 | .0500 | .0463 | .0431 | .0402 |
| 0.35 | .0877 | .0790 | .0716 | .0652 | .0697 | .0649 | .0507 | .0470 | .0437 | .0408 |
| 0.36 | .0889 | .0801 | .0726 | .0661 | .0696 | .0657 | .0614 | .0476 | .0443 | .0413 |
| 0.37 | .0901 | .0812 | .0736 | .0671 | .0614 | .0565 | .0522 | .0483 | .0450 | .0420 |
| 0.38 | .0913 | .0823 | .0746 | .0680 | .0623 | .0573 | .0529 | .0490 | .0456 | .0426 |
| 0.39 | .0926 | .0835 | .0757 | .0690 | .0632 | .0581 | .0537 | .0498 | .0463 | .0432 |
| 0.40 | .0939 | .0847 | .0768 | .0700 | .0642 | .0690 | .0645 | .0505 | .0470 | .0439 |
| 0.41 | .0953 | .0859 | .0779 | .0711 | .0651 | .0599 | .0554 | .0513 | .0478 | .0446 |
| 0.42 | .0967 | .0872 | .0791 | .0722 | .0661 | .0609 | .0562 | .0522 | .0485 | .0453 |
| 0.43 | .0981 | .0885 | .0803 | .0733 | .0672 | .0618 | .0571 | .0530 | .0493 | .0461 |
| 0.44 | .0996 | .0899 | .0816 | .0745 | .0683 | .0628 | .0681 | .0539 | .0502 | .0468 |
| 0.45 | .1011 | .0913 | .0829 | .0757 | .0694 | .0639 | .0590 | .0548 | .0510 | .0477 |
| 0.46 | .1027 | .0928 | .0843 | .0769 | .0705 | .0650 | .0601 | .0557 | .0518 | .0485 |
| 0.47 | .1044 | .0943 | .0857 | .0782 | .0717 | .0661 | .0611 | .0567 | .0528 | .0494 |
| 0.48 | .1061 | .0959 | .0871 | .0796 | .0730 | .0672 | .0622 | .0577 | .0538 | .0503 |
| 0.49 | .1079 | .0975 | .0886 | .0809 | .0743 | .0684 | .0633 | .0588 | .0548 | .0512 |
| 0.50 | .1097 | .0992 | .0902 | .0824 | .0758 | .0697 | .0645 | .0599 | .0558 | .0522 |
| 0.51 | .1116 | .1010 | .0918 | .0839 | .0770 | .0710 | .0657 | .0610 | .0569 | .0532 |
| 0.52 | .1138 | .1028 | .0935 | .0855 | .0785 | .0724 | .0670 | .0622 | .0580 | .0543 |
| 0.53 | .1157 | .1047 | .0953 | .0871 | .0800 | .0738 | .0683 | .0635 | .0592 | .0554 |
| 0.54 | .1179 | .1067 | .0972 | .0889 | .0817 | .0753 | .0697 | .0648 | .0604 | .0566 |
| 0.55 | .1202 | .1089 | .0991 | .0907 | .0834 | .0769 | .0712 | .0662 | .0618 | .0578 |
| 0.56 | .1226 | .1111 | .1012 | .0926 | .0852 | .0786 | .0728 | .0677 | .0632 | .0591 |
| 0.57 | .1252 | .1135 | .1034 | .0947 | .0871 | .0804 | .0745 | .0693 | .0647 | .0605 |
| 0.58 | .1280 | .1160 | .1058 | .0969 | .0891 | .0823 | .0763 | .0710 | .0662 | .0620 |
| 0.59 | .1309 | .1188 | .1083 | .0992 | .0913 | .0844 | .0782 | .0728 | .0680 | .0637 |
| 0.60 | .1341 | .1217 | .1110 | .1018 | .0937 | .0866 | .0803 | .0748 | .0698 | .0654 |

TIME BETWEEN MEASUREMENTS = 60 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0297 | .0243 | .0205 | .0178 | .0157 | .0141 | .0127 | .0116 | .0106 | .0097 |
| 0.31 | .0301 | .0246 | .0208 | .0181 | .0160 | .0143 | .0129 | .0117 | .0107 | .0098 |
| 0.32 | .0306 | .0250 | .0211 | .0183 | .0162 | .0145 | .0131 | .0119 | .0109 | .0100 |
| 0.33 | .0310 | .0253 | .0214 | .0186 | .0164 | .0147 | .0133 | .0121 | .0110 | .0101 |
| 0.34 | .0314 | .0257 | .0217 | .0189 | .0167 | .0149 | .0135 | .0123 | .0112 | .0103 |
| 0.35 | .0319 | .0261 | .0221 | .0192 | .0169 | .0152 | .0137 | .0125 | .0114 | .0104 |
| 0.36 | .0324 | .0265 | .0224 | .0195 | .0172 | .0154 | .0139 | .0127 | .0116 | .0106 |
| 0.37 | .0329 | .0269 | .0228 | .0198 | .0175 | .0157 | .0142 | .0129 | .0117 | .0108 |
| 0.38 | .0334 | .0273 | .0231 | .0201 | .0178 | .0159 | .0144 | .0131 | .0119 | .0109 |
| 0.39 | .0339 | .0277 | .0235 | .0204 | .0181 | .0162 | .0146 | .0133 | .0121 | .0111 |
| 0.40 | .0344 | .0282 | .0239 | .0208 | .0184 | .0165 | .0149 | .0135 | .0123 | .0113 |
| 0.41 | .0350 | .0287 | .0243 | .0211 | .0187 | .0167 | .0151 | .0138 | .0126 | .0115 |
| 0.42 | .0356 | .0291 | .0247 | .0215 | .0190 | .0170 | .0154 | .0140 | .0128 | .0117 |
| 0.43 | .0362 | .0296 | .0251 | .0219 | .0194 | .0173 | .0157 | .0143 | .0130 | .0119 |
| 0.44 | .0368 | .0302 | .0256 | .0223 | .0197 | .0177 | .0160 | .0145 | .0133 | .0121 |
| 0.45 | .0374 | .0307 | .0261 | .0227 | .0201 | .0180 | .0163 | .0148 | .0135 | .0124 |
| 0.46 | .0381 | .0313 | .0266 | .0231 | .0205 | .0184 | .0166 | .0151 | .0138 | .0126 |
| 0.47 | .0388 | .0319 | .0271 | .0236 | .0209 | .0187 | .0169 | .0154 | .0141 | .0129 |
| 0.48 | .0396 | .0325 | .0276 | .0240 | .0213 | .0191 | .0173 | .0157 | .0143 | .0131 |
| 0.49 | .0403 | .0331 | .0281 | .0245 | .0217 | .0195 | .0176 | .0160 | .0146 | .0134 |
| 0.50 | .0411 | .0336 | .0287 | .0250 | .0222 | .0199 | .0180 | .0164 | .0150 | .0137 |
| 0.51 | .0419 | .0345 | .0293 | .0256 | .0227 | .0203 | .0184 | .0167 | .0153 | .0140 |
| 0.52 | .0428 | .0352 | .0300 | .0261 | .0232 | .0208 | .0188 | .0171 | .0156 | .0143 |
| 0.53 | .0437 | .0360 | .0306 | .0267 | .0237 | .0213 | .0192 | .0175 | .0160 | .0146 |
| 0.54 | .0447 | .0368 | .0313 | .0273 | .0243 | .0218 | .0197 | .0179 | .0164 | .0150 |
| 0.55 | .0457 | .0377 | .0321 | .0280 | .0248 | .0223 | .0202 | .0184 | .0168 | .0154 |
| 0.56 | .0468 | .0388 | .0329 | .0287 | .0255 | .0229 | .0207 | .0188 | .0172 | .0158 |
| 0.57 | .0479 | .0396 | .0337 | .0295 | .0262 | .0235 | .0213 | .0194 | .0177 | .0162 |
| 0.58 | .0492 | .0408 | .0347 | .0303 | .0269 | .0241 | .0219 | .0199 | .0182 | .0167 |
| 0.59 | .0505 | .0418 | .0357 | .0312 | .0277 | .0249 | .0225 | .0205 | .0187 | .0172 |
| 0.60 | .0520 | .0430 | .0367 | .0321 | .0285 | .0256 | .0232 | .0211 | .0193 | .0177 |

TIME BETWEEN MEASUREMENTS = 80 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .9162 | .8442 | .7814 | .7259 | .6765 | .6322 | .5922 | .5559 | .5228 | .4926 |
| 0.31 | .9172 | .8458 | .7834 | .7283 | .6791 | .6348 | .5949 | .5586 | .5256 | .4954 |
| 0.32 | .9182 | .8475 | .7855 | .7306 | .6816 | .6375 | .5976 | .5614 | .5283 | .4981 |
| 0.33 | .9192 | .8491 | .7875 | .7329 | .6841 | .6401 | .6003 | .5641 | .5311 | .5009 |
| 0.34 | .9201 | .8507 | .7896 | .7353 | .6867 | .6428 | .6031 | .5669 | .5339 | .5037 |
| 0.35 | .9211 | .8523 | .7916 | .7376 | .6892 | .6455 | .6058 | .5697 | .5368 | .5066 |
| 0.36 | .9220 | .8539 | .7937 | .7400 | .6918 | .6482 | .6086 | .5728 | .5398 | .5095 |
| 0.37 | .9230 | .8555 | .7957 | .7424 | .6943 | .6509 | .6114 | .5755 | .5426 | .5124 |
| 0.38 | .9239 | .8571 | .7978 | .7447 | .6969 | .6536 | .6143 | .5784 | .5455 | .5154 |
| 0.39 | .9249 | .8587 | .7998 | .7471 | .6995 | .6564 | .6171 | .5813 | .5485 | .5184 |
| 0.40 | .9258 | .8603 | .8019 | .7494 | .7021 | .6591 | .6200 | .5842 | .5515 | .5214 |
| 0.41 | .9267 | .8618 | .8039 | .7518 | .7047 | .6619 | .6229 | .5872 | .5546 | .5245 |
| 0.42 | .9276 | .8634 | .8059 | .7542 | .7073 | .6647 | .6258 | .5903 | .5577 | .5277 |
| 0.43 | .9285 | .8650 | .8080 | .7566 | .7100 | .6676 | .6288 | .5934 | .5608 | .5309 |
| 0.44 | .9294 | .8665 | .8100 | .7590 | .7128 | .6704 | .6318 | .5965 | .5640 | .5342 |
| 0.45 | .9304 | .8681 | .8121 | .7614 | .7153 | .6733 | .6349 | .5997 | .5673 | .5375 |
| 0.46 | .9313 | .8697 | .8142 | .7638 | .7181 | .6763 | .6380 | .6029 | .5707 | .5410 |
| 0.47 | .9322 | .8713 | .8162 | .7663 | .7208 | .6793 | .6412 | .6063 | .5741 | .5445 |
| 0.48 | .9331 | .8728 | .8184 | .7688 | .7237 | .6824 | .6445 | .6097 | .5777 | .5482 |
| 0.49 | .9340 | .8745 | .8205 | .7714 | .7266 | .6855 | .6479 | .6133 | .5814 | .5520 |
| 0.50 | .9349 | .8761 | .8227 | .7740 | .7295 | .6888 | .6514 | .6169 | .5852 | .5559 |
| 0.51 | .9359 | .8778 | .8249 | .7767 | .7326 | .6922 | .6550 | .6208 | .5892 | .5601 |
| 0.52 | .9368 | .8795 | .8273 | .7795 | .7358 | .6957 | .6588 | .6248 | .5934 | .5644 |
| 0.53 | .9378 | .8813 | .8297 | .7825 | .7392 | .6994 | .6628 | .6290 | .5979 | .5690 |
| 0.54 | .9388 | .8831 | .8322 | .7855 | .7427 | .7033 | .6670 | .6335 | .6028 | .5740 |
| 0.55 | .9399 | .8850 | .8348 | .7886 | .7464 | .7075 | .6715 | .6384 | .6077 | .5792 |
| 0.56 | .9410 | .8870 | .8376 | .7922 | .7504 | .7118 | .6764 | .6435 | .6131 | .5849 |
| 0.57 | .9422 | .8892 | .8406 | .7959 | .7547 | .7167 | .6818 | .6491 | .6190 | .5911 |
| 0.58 | .9434 | .8915 | .8437 | .7998 | .7592 | .7218 | .6872 | .6551 | .6253 | .5977 |
| 0.59 | .9447 | .8939 | .8471 | .8040 | .7641 | .7273 | .6932 | .6616 | .6322 | .6049 |
| 0.60 | .9461 | .8964 | .8507 | .8084 | .7694 | .7332 | .6997 | .6688 | .6396 | .6127 |

TIME BETWEEN MEASUREMENTS = 80 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .4650 | .4396 | .4162 | .3947 | .3749 | .3585 | .3396 | .3238 | .3092 | .2957 |
| 0.31 | .4677 | .4423 | .4189 | .3973 | .3775 | .3591 | .3421 | .3263 | .3117 | .2981 |
| 0.32 | .4704 | .4450 | .4216 | .4000 | .3801 | .3617 | .3446 | .3288 | .3141 | .3005 |
| 0.33 | .4732 | .4477 | .4243 | .4027 | .3827 | .3643 | .3472 | .3314 | .3167 | .3030 |
| 0.34 | .4760 | .4505 | .4271 | .4054 | .3855 | .3670 | .3499 | .3340 | .3192 | .3055 |
| 0.35 | .4789 | .4534 | .4299 | .4082 | .3882 | .3697 | .3526 | .3367 | .3219 | .3081 |
| 0.36 | .4818 | .4563 | .4328 | .4111 | .3811 | .3725 | .3553 | .3394 | .3248 | .3108 |
| 0.37 | .4847 | .4592 | .4357 | .4140 | .3939 | .3754 | .3582 | .3422 | .3273 | .3135 |
| 0.38 | .4877 | .4622 | .4387 | .4170 | .3969 | .3783 | .3610 | .3450 | .3302 | .3163 |
| 0.39 | .4907 | .4652 | .4417 | .4200 | .3999 | .3813 | .3640 | .3480 | .3330 | .3192 |
| 0.40 | .4938 | .4683 | .4448 | .4230 | .4029 | .3843 | .3670 | .3510 | .3360 | .3221 |
| 0.41 | .4969 | .4714 | .4479 | .4262 | .4061 | .3874 | .3701 | .3540 | .3391 | .3251 |
| 0.42 | .5001 | .4748 | .4511 | .4294 | .4093 | .3906 | .3733 | .3572 | .3422 | .3282 |
| 0.43 | .5033 | .4779 | .4544 | .4327 | .4126 | .3939 | .3766 | .3605 | .3454 | .3314 |
| 0.44 | .5067 | .4813 | .4578 | .4361 | .4160 | .3973 | .3799 | .3638 | .3488 | .3347 |
| 0.45 | .5101 | .4847 | .4613 | .4396 | .4195 | .4008 | .3834 | .3673 | .3522 | .3382 |
| 0.46 | .5138 | .4883 | .4649 | .4432 | .4231 | .4044 | .3870 | .3709 | .3558 | .3417 |
| 0.47 | .5172 | .4919 | .4686 | .4469 | .4268 | .4081 | .3908 | .3748 | .3595 | .3454 |
| 0.48 | .5209 | .4957 | .4724 | .4508 | .4307 | .4120 | .3947 | .3785 | .3634 | .3493 |
| 0.49 | .5248 | .4997 | .4764 | .4548 | .4348 | .4161 | .3988 | .3828 | .3675 | .3533 |
| 0.50 | .5289 | .5038 | .4806 | .4590 | .4390 | .4204 | .4031 | .3869 | .3718 | .3578 |
| 0.51 | .5331 | .5081 | .4850 | .4635 | .4435 | .4249 | .4076 | .3914 | .3763 | .3621 |
| 0.52 | .5376 | .5127 | .4897 | .4682 | .4483 | .4297 | .4124 | .3962 | .3811 | .3670 |
| 0.53 | .5424 | .5176 | .4948 | .4733 | .4534 | .4349 | .4176 | .4014 | .3863 | .3721 |
| 0.54 | .5474 | .5228 | .4999 | .4787 | .4588 | .4404 | .4231 | .4069 | .3918 | .3776 |
| 0.55 | .5529 | .5284 | .5056 | .4845 | .4647 | .4463 | .4291 | .4129 | .3978 | .3836 |
| 0.56 | .5588 | .5344 | .5118 | .4907 | .4711 | .4527 | .4355 | .4194 | .4043 | .3902 |
| 0.57 | .5651 | .5410 | .5185 | .4976 | .4780 | .4597 | .4426 | .4265 | .4115 | .3973 |
| 0.58 | .5720 | .5481 | .5258 | .5050 | .4855 | .4673 | .4503 | .4343 | .4192 | .4051 |
| 0.59 | .5795 | .5558 | .5337 | .5131 | .4938 | .4756 | .4587 | .4427 | .4277 | .4135 |
| 0.60 | .5876 | .5642 | .5423 | .5218 | .5026 | .4847 | .4677 | .4518 | .4369 | .4227 |

TIME BETWEEN MEASUREMENTS = 60 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .2604 | .2316 | .2080 | .1882 | .1715 | .1573 | .1450 | .1343 | .1249 | .1166 |
| 0.31 | .2626 | .2338 | .2100 | .1901 | .1734 | .1590 | .1467 | .1359 | .1264 | .1180 |
| 0.32 | .2650 | .2360 | .2121 | .1921 | .1752 | .1608 | .1483 | .1375 | .1279 | .1194 |
| 0.33 | .2673 | .2382 | .2142 | .1941 | .1771 | .1626 | .1501 | .1391 | .1294 | .1208 |
| 0.34 | .2697 | .2405 | .2164 | .1962 | .1791 | .1645 | .1518 | .1408 | .1310 | .1224 |
| 0.35 | .2722 | .2429 | .2186 | .1983 | .1811 | .1664 | .1536 | .1425 | .1327 | .1239 |
| 0.36 | .2748 | .2453 | .2210 | .2005 | .1832 | .1684 | .1555 | .1443 | .1344 | .1255 |
| 0.37 | .2774 | .2478 | .2233 | .2028 | .1854 | .1704 | .1575 | .1461 | .1361 | .1272 |
| 0.38 | .2801 | .2504 | .2258 | .2051 | .1876 | .1725 | .1595 | .1480 | .1379 | .1289 |
| 0.39 | .2828 | .2530 | .2283 | .2075 | .1899 | .1747 | .1615 | .1500 | .1398 | .1307 |
| 0.40 | .2857 | .2558 | .2309 | .2100 | .1922 | .1770 | .1637 | .1520 | .1417 | .1325 |
| 0.41 | .2886 | .2586 | .2336 | .2126 | .1947 | .1793 | .1659 | .1541 | .1437 | .1344 |
| 0.42 | .2916 | .2615 | .2364 | .2152 | .1972 | .1817 | .1682 | .1563 | .1458 | .1364 |
| 0.43 | .2947 | .2645 | .2392 | .2180 | .1998 | .1842 | .1708 | .1586 | .1480 | .1385 |
| 0.44 | .2979 | .2676 | .2422 | .2208 | .2026 | .1868 | .1731 | .1610 | .1502 | .1406 |
| 0.45 | .3013 | .2708 | .2453 | .2238 | .2054 | .1895 | .1758 | .1634 | .1526 | .1429 |
| 0.46 | .3047 | .2741 | .2486 | .2269 | .2084 | .1923 | .1783 | .1660 | .1550 | .1452 |
| 0.47 | .3083 | .2776 | .2519 | .2302 | .2115 | .1953 | .1812 | .1687 | .1578 | .1477 |
| 0.48 | .3121 | .2813 | .2555 | .2336 | .2147 | .1984 | .1842 | .1715 | .1603 | .1503 |
| 0.49 | .3161 | .2852 | .2592 | .2372 | .2182 | .2017 | .1873 | .1748 | .1632 | .1530 |
| 0.50 | .3203 | .2893 | .2632 | .2410 | .2218 | .2052 | .1907 | .1777 | .1662 | .1559 |
| 0.51 | .3247 | .2936 | .2674 | .2450 | .2257 | .2090 | .1942 | .1812 | .1695 | .1590 |
| 0.52 | .3295 | .2982 | .2719 | .2493 | .2299 | .2129 | .1980 | .1848 | .1730 | .1624 |
| 0.53 | .3346 | .3032 | .2767 | .2540 | .2344 | .2172 | .2021 | .1887 | .1767 | .1660 |
| 0.54 | .3400 | .3086 | .2819 | .2580 | .2382 | .2219 | .2066 | .1930 | .1808 | .1699 |
| 0.55 | .3460 | .3144 | .2875 | .2645 | .2445 | .2269 | .2114 | .1977 | .1853 | .1741 |
| 0.56 | .3525 | .3207 | .2937 | .2704 | .2502 | .2325 | .2168 | .2027 | .1902 | .1788 |
| 0.57 | .3595 | .3278 | .3004 | .2770 | .2565 | .2385 | .2226 | .2083 | .1955 | .1839 |
| 0.58 | .3672 | .3352 | .3078 | .2841 | .2634 | .2452 | .2290 | .2145 | .2014 | .1896 |
| 0.59 | .3757 | .3435 | .3159 | .2920 | .2710 | .2525 | .2360 | .2212 | .2079 | .1958 |
| 0.60 | .3848 | .3526 | .3247 | .3006 | .2793 | .2605 | .2437 | .2286 | .2150 | .2026 |

TIME BETWEEN MEASUREMENTS = 100 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .9290 | .8657 | .8089 | .7577 | .7112 | .6689 | .6302 | .5948 | .5623 | .5324 |
| 0.31 | .9297 | .8669 | .8105 | .7596 | .7133 | .6712 | .6326 | .5973 | .5649 | .5350 |
| 0.32 | .9304 | .8682 | .8122 | .7615 | .7155 | .6735 | .6350 | .5998 | .5675 | .5377 |
| 0.33 | .9311 | .8694 | .8138 | .7634 | .7176 | .6758 | .6375 | .6024 | .5701 | .5404 |
| 0.34 | .9318 | .8707 | .8155 | .7654 | .7199 | .6782 | .6400 | .6050 | .5728 | .5432 |
| 0.35 | .9325 | .8719 | .8171 | .7674 | .7220 | .6806 | .6426 | .6077 | .5756 | .5460 |
| 0.36 | .9333 | .8732 | .8188 | .7694 | .7243 | .6830 | .6452 | .6104 | .5784 | .5490 |
| 0.37 | .9340 | .8744 | .8205 | .7714 | .7265 | .6855 | .6478 | .6132 | .5813 | .5519 |
| 0.38 | .9347 | .8757 | .8222 | .7734 | .7289 | .6880 | .6506 | .6161 | .5843 | .5550 |
| 0.39 | .9354 | .8770 | .8239 | .7755 | .7312 | .6906 | .6533 | .6190 | .5874 | .5582 |
| 0.40 | .9362 | .8783 | .8257 | .7776 | .7336 | .6933 | .6562 | .6220 | .5905 | .5614 |
| 0.41 | .9369 | .8796 | .8275 | .7798 | .7361 | .6960 | .6591 | .6251 | .5938 | .5648 |
| 0.42 | .9376 | .8810 | .8293 | .7820 | .7387 | .6988 | .6622 | .6284 | .5972 | .5683 |
| 0.43 | .9384 | .8824 | .8312 | .7843 | .7413 | .7018 | .6653 | .6317 | .6007 | .5720 |
| 0.44 | .9392 | .8838 | .8331 | .7867 | .7440 | .7046 | .6686 | .6353 | .6044 | .5758 |
| 0.45 | .9400 | .8853 | .8351 | .7892 | .7469 | .7080 | .6721 | .6389 | .6083 | .5799 |
| 0.46 | .9408 | .8868 | .8372 | .7917 | .7499 | .7113 | .6757 | .6428 | .6124 | .5842 |
| 0.47 | .9417 | .8884 | .8394 | .7945 | .7531 | .7149 | .6798 | .6470 | .6167 | .5887 |
| 0.48 | .9426 | .8901 | .8418 | .7973 | .7564 | .7186 | .6837 | .6514 | .6214 | .5936 |
| 0.49 | .9436 | .8918 | .8442 | .8004 | .7600 | .7226 | .6881 | .6560 | .6264 | .5988 |
| 0.50 | .9446 | .8937 | .8468 | .8038 | .7638 | .7269 | .6927 | .6611 | .6317 | .6044 |
| 0.51 | .9457 | .8957 | .8496 | .8071 | .7678 | .7314 | .6977 | .6665 | .6374 | .6104 |
| 0.52 | .9468 | .8978 | .8528 | .8108 | .7721 | .7363 | .7031 | .6722 | .6435 | .6168 |
| 0.53 | .9480 | .9000 | .8557 | .8147 | .7767 | .7415 | .7088 | .6784 | .6501 | .6237 |
| 0.54 | .9492 | .9023 | .8590 | .8188 | .7816 | .7470 | .7148 | .6849 | .6570 | .6309 |
| 0.55 | .9505 | .9048 | .8624 | .8231 | .7866 | .7527 | .7212 | .6917 | .6643 | .6388 |
| 0.56 | .9519 | .9073 | .8660 | .8276 | .7919 | .7587 | .7277 | .6988 | .6718 | .6465 |
| 0.57 | .9532 | .9099 | .8696 | .8321 | .7973 | .7648 | .7344 | .7061 | .6796 | .6547 |
| 0.58 | .9546 | .9124 | .8732 | .8367 | .8027 | .7709 | .7413 | .7135 | .6874 | .6630 |
| 0.59 | .9560 | .9150 | .8769 | .8414 | .8082 | .7771 | .7481 | .7209 | .6953 | .6713 |
| 0.60 | .9573 | .9176 | .8805 | .8459 | .8136 | .7833 | .7549 | .7282 | .7032 | .6796 |

TIME BETWEEN MEASUREMENTS = 100 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .5049 | .4794 | .4560 | .4342 | .4141 | .3955 | .3781 | .3620 | .3469 | .3329 |
| 0.31 | .5075 | .4821 | .4587 | .4370 | .4168 | .3982 | .3808 | .3647 | .3496 | .3356 |
| 0.32 | .5102 | .4849 | .4614 | .4397 | .4196 | .4009 | .3838 | .3674 | .3524 | .3383 |
| 0.33 | .5130 | .4877 | .4643 | .4426 | .4225 | .4036 | .3864 | .3703 | .3552 | .3411 |
| 0.34 | .5158 | .4906 | .4672 | .4455 | .4254 | .4067 | .3894 | .3732 | .3581 | .3440 |
| 0.35 | .5187 | .4935 | .4702 | .4485 | .4284 | .4098 | .3924 | .3762 | .3611 | .3470 |
| 0.36 | .5217 | .4965 | .4732 | .4516 | .4315 | .4129 | .3955 | .3793 | .3642 | .3501 |
| 0.37 | .5248 | .4996 | .4764 | .4548 | .4347 | .4161 | .3987 | .3825 | .3674 | .3533 |
| 0.38 | .5279 | .5028 | .4796 | .4581 | .4380 | .4194 | .4021 | .3859 | .3707 | .3566 |
| 0.39 | .5312 | .5062 | .4830 | .4615 | .4415 | .4228 | .4055 | .3893 | .3742 | .3600 |
| 0.40 | .5345 | .5096 | .4865 | .4650 | .4450 | .4264 | .4091 | .3929 | .3778 | .3636 |
| 0.41 | .5380 | .5131 | .4901 | .4686 | .4487 | .4301 | .4128 | .3967 | .3815 | .3674 |
| 0.42 | .5416 | .5168 | .4938 | .4725 | .4526 | .4340 | .4167 | .4006 | .3855 | .3713 |
| 0.43 | .5454 | .5207 | .4978 | .4765 | .4566 | .4381 | .4209 | .4047 | .3896 | .3754 |
| 0.44 | .5494 | .5248 | .5020 | .4807 | .4609 | .4424 | .4252 | .4091 | .3939 | .3798 |
| 0.45 | .5535 | .5291 | .5063 | .4852 | .4654 | .4470 | .4298 | .4137 | .3986 | .3844 |
| 0.46 | .5580 | .5336 | .5110 | .4899 | .4702 | .4519 | .4347 | .4186 | .4035 | .3893 |
| 0.47 | .5627 | .5385 | .5160 | .4950 | .4754 | .4570 | .4399 | .4238 | .4087 | .3946 |
| 0.48 | .5677 | .5437 | .5213 | .5004 | .4809 | .4626 | .4455 | .4294 | .4144 | .4002 |
| 0.49 | .5731 | .5492 | .5270 | .5062 | .4868 | .4688 | .4515 | .4355 | .4205 | .4063 |
| 0.50 | .5789 | .5552 | .5331 | .5124 | .4931 | .4750 | .4580 | .4420 | .4270 | .4129 |
| 0.51 | .5852 | .5617 | .5397 | .5192 | .5000 | .4819 | .4650 | .4481 | .4341 | .4200 |
| 0.52 | .5919 | .5686 | .5468 | .5264 | .5073 | .4894 | .4725 | .4567 | .4417 | .4278 |
| 0.53 | .5990 | .5760 | .5544 | .5342 | .5152 | .4974 | .4806 | .4648 | .4499 | .4358 |
| 0.54 | .6066 | .5838 | .5625 | .5424 | .5236 | .5058 | .4892 | .4735 | .4586 | .4445 |
| 0.55 | .6148 | .5921 | .5709 | .5511 | .5324 | .5148 | .4983 | .4826 | .4678 | .4537 |
| 0.56 | .6229 | .6006 | .5798 | .5601 | .5416 | .5242 | .5077 | .4921 | .4773 | .4633 |
| 0.57 | .6314 | .6095 | .5888 | .5694 | .5511 | .5337 | .5174 | .5019 | .4872 | .4732 |
| 0.58 | .6400 | .6184 | .5980 | .5788 | .5607 | .5435 | .5272 | .5118 | .4972 | .4832 |
| 0.59 | .6487 | .6274 | .6073 | .5883 | .5703 | .5533 | .5372 | .5218 | .5073 | .4934 |
| 0.60 | .6573 | .6363 | .6165 | .5977 | .5800 | .5631 | .5471 | .5318 | .5173 | .5035 |

TIME BETWEEN MEASUREMENTS = 100 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .2962 | .2659 | .2406 | .2193 | .2011 | .1854 | .1717 | .1597 | .1490 | .1394 |
| 0.31 | .2987 | .2684 | .2430 | .2216 | .2033 | .1875 | .1737 | .1616 | .1508 | .1412 |
| 0.32 | .3014 | .2709 | .2455 | .2239 | .2055 | .1896 | .1758 | .1635 | .1527 | .1430 |
| 0.33 | .3041 | .2736 | .2480 | .2264 | .2079 | .1919 | .1779 | .1656 | .1546 | .1448 |
| 0.34 | .3070 | .2763 | .2507 | .2289 | .2103 | .1942 | .1801 | .1677 | .1566 | .1467 |
| 0.35 | .3099 | .2792 | .2534 | .2316 | .2128 | .1966 | .1824 | .1699 | .1587 | .1487 |
| 0.36 | .3129 | .2821 | .2562 | .2343 | .2154 | .1991 | .1848 | .1722 | .1609 | .1508 |
| 0.37 | .3161 | .2851 | .2592 | .2371 | .2182 | .2017 | .1873 | .1745 | .1632 | .1530 |
| 0.38 | .3193 | .2883 | .2622 | .2401 | .2210 | .2044 | .1899 | .1770 | .1655 | .1552 |
| 0.39 | .3227 | .2916 | .2654 | .2431 | .2239 | .2072 | .1928 | .1796 | .1680 | .1576 |
| 0.40 | .3262 | .2950 | .2688 | .2463 | .2270 | .2102 | .1954 | .1823 | .1706 | .1601 |
| 0.41 | .3299 | .2986 | .2722 | .2497 | .2303 | .2133 | .1984 | .1851 | .1733 | .1626 |
| 0.42 | .3338 | .3024 | .2759 | .2532 | .2337 | .2166 | .2015 | .1881 | .1762 | .1654 |
| 0.43 | .3378 | .3064 | .2798 | .2570 | .2373 | .2200 | .2048 | .1913 | .1792 | .1683 |
| 0.44 | .3421 | .3106 | .2839 | .2609 | .2411 | .2237 | .2083 | .1948 | .1824 | .1714 |
| 0.45 | .3467 | .3151 | .2882 | .2651 | .2451 | .2276 | .2120 | .1982 | .1858 | .1748 |
| 0.46 | .3518 | .3199 | .2929 | .2696 | .2495 | .2317 | .2160 | .2021 | .1895 | .1782 |
| 0.47 | .3568 | .3250 | .2979 | .2745 | .2541 | .2362 | .2203 | .2062 | .1935 | .1820 |
| 0.48 | .3624 | .3305 | .3032 | .2797 | .2591 | .2410 | .2250 | .2108 | .1977 | .1860 |
| 0.48 | .3665 | .3364 | .3090 | .2853 | .2646 | .2463 | .2300 | .2155 | .2023 | .1905 |
| 0.50 | .3750 | .3429 | .3153 | .2914 | .2704 | .2518 | .2354 | .2207 | .2074 | .1953 |
| 0.51 | .3821 | .3498 | .3221 | .2980 | .2768 | .2581 | .2413 | .2284 | .2128 | .2005 |
| 0.52 | .3897 | .3573 | .3284 | .3051 | .2837 | .2647 | .2477 | .2325 | .2187 | .2062 |
| 0.53 | .3979 | .3654 | .3373 | .3127 | .2911 | .2719 | .2546 | .2391 | .2251 | .2123 |
| 0.54 | .4066 | .3740 | .3457 | .3209 | .2990 | .2795 | .2620 | .2462 | .2319 | .2189 |
| 0.55 | .4158 | .3831 | .3546 | .3296 | .3074 | .2876 | .2699 | .2538 | .2392 | .2259 |
| 0.56 | .4254 | .3925 | .3639 | .3386 | .3162 | .2961 | .2781 | .2617 | .2468 | .2333 |
| 0.57 | .4353 | .4023 | .3735 | .3480 | .3253 | .3048 | .2866 | .2699 | .2548 | .2409 |
| 0.58 | .4453 | .4123 | .3833 | .3575 | .3346 | .3139 | .2953 | .2783 | .2629 | .2488 |
| 0.59 | .4555 | .4224 | .3932 | .3672 | .3440 | .3231 | .3041 | .2869 | .2711 | .2567 |
| 0.60 | .4657 | .4325 | .4031 | .3769 | .3534 | .3322 | .3130 | .2955 | .2795 | .2648 |

TIME BETWEEN MEASUREMENTS = 100 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1256 | .1139 | .1038 | .0950 | .0874 | .0807 | .0748 | .0695 | .0649 | .0608 |
| 0.31 | .1272 | .1153 | .1051 | .0963 | .0886 | .0818 | .0758 | .0705 | .0658 | .0616 |
| 0.32 | .1289 | .1169 | .1066 | .0976 | .0898 | .0829 | .0769 | .0715 | .0668 | .0625 |
| 0.33 | .1306 | .1185 | .1080 | .0990 | .0911 | .0841 | .0780 | .0726 | .0678 | .0635 |
| 0.34 | .1324 | .1201 | .1096 | .1004 | .0924 | .0854 | .0792 | .0737 | .0688 | .0645 |
| 0.35 | .1342 | .1218 | .1112 | .1019 | .0938 | .0867 | .0804 | .0748 | .0699 | .0655 |
| 0.36 | .1361 | .1236 | .1128 | .1034 | .0952 | .0880 | .0817 | .0760 | .0710 | .0666 |
| 0.37 | .1381 | .1255 | .1145 | .1050 | .0967 | .0894 | .0830 | .0773 | .0722 | .0677 |
| 0.38 | .1402 | .1274 | .1163 | .1067 | .0983 | .0909 | .0844 | .0786 | .0735 | .0689 |
| 0.39 | .1424 | .1294 | .1182 | .1085 | .1000 | .0925 | .0858 | .0800 | .0748 | .0701 |
| 0.40 | .1447 | .1316 | .1202 | .1103 | .1017 | .0941 | .0874 | .0814 | .0761 | .0714 |
| 0.41 | .1471 | .1338 | .1223 | .1123 | .1035 | .0958 | .0890 | .0829 | .0776 | .0728 |
| 0.42 | .1497 | .1362 | .1245 | .1144 | .1055 | .0976 | .0907 | .0846 | .0791 | .0742 |
| 0.43 | .1523 | .1387 | .1268 | .1165 | .1075 | .0995 | .0925 | .0863 | .0807 | .0758 |
| 0.44 | .1552 | .1413 | .1293 | .1189 | .1097 | .1016 | .0944 | .0881 | .0824 | .0774 |
| 0.45 | .1583 | .1442 | .1320 | .1214 | .1120 | .1038 | .0965 | .0901 | .0843 | .0792 |
| 0.46 | .1615 | .1472 | .1348 | .1240 | .1145 | .1062 | .0987 | .0922 | .0863 | .0811 |
| 0.47 | .1651 | .1505 | .1379 | .1269 | .1172 | .1087 | .1012 | .0944 | .0885 | .0831 |
| 0.48 | .1689 | .1541 | .1413 | .1300 | .1202 | .1115 | .1038 | .0969 | .0908 | .0854 |
| 0.49 | .1730 | .1580 | .1449 | .1334 | .1234 | .1145 | .1066 | .0996 | .0934 | .0878 |
| 0.50 | .1775 | .1622 | .1488 | .1371 | .1268 | .1178 | .1097 | .1026 | .0962 | .0905 |
| 0.51 | .1824 | .1667 | .1531 | .1412 | .1306 | .1214 | .1131 | .1058 | .0993 | .0934 |
| 0.52 | .1877 | .1717 | .1578 | .1456 | .1348 | .1253 | .1168 | .1093 | .1026 | .0966 |
| 0.53 | .1935 | .1771 | .1628 | .1503 | .1393 | .1295 | .1209 | .1132 | .1063 | .1001 |
| 0.54 | .1996 | .1829 | .1683 | .1555 | .1441 | .1341 | .1252 | .1173 | .1102 | .1039 |
| 0.55 | .2062 | .1891 | .1741 | .1610 | .1493 | .1390 | .1299 | .1218 | .1145 | .1080 |
| 0.56 | .2131 | .1958 | .1802 | .1667 | .1548 | .1443 | .1349 | .1265 | .1190 | .1123 |
| 0.57 | .2203 | .2024 | .1866 | .1728 | .1606 | .1497 | .1401 | .1314 | .1237 | .1168 |
| 0.58 | .2277 | .2094 | .1933 | .1791 | .1665 | .1554 | .1455 | .1366 | .1287 | .1216 |
| 0.59 | .2353 | .2165 | .2000 | .1855 | .1726 | .1612 | .1510 | .1419 | .1338 | .1264 |
| 0.60 | .2429 | .2237 | .2069 | .1920 | .1788 | .1671 | .1567 | .1473 | .1390 | .1314 |

TIME BETWEEN MEASUREMENTS = 100 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0481 | .0397 | .0339 | .0296 | .0263 | .0236 | .0213 | .0194 | .0178 | .0163 |
| 0.31 | .0488 | .0403 | .0344 | .0301 | .0267 | .0240 | .0217 | .0197 | .0180 | .0165 |
| 0.32 | .0496 | .0410 | .0350 | .0305 | .0271 | .0244 | .0221 | .0201 | .0183 | .0168 |
| 0.33 | .0504 | .0416 | .0355 | .0311 | .0276 | .0248 | .0224 | .0204 | .0187 | .0171 |
| 0.34 | .0512 | .0423 | .0361 | .0316 | .0281 | .0252 | .0228 | .0208 | .0190 | .0174 |
| 0.35 | .0520 | .0431 | .0368 | .0321 | .0286 | .0257 | .0232 | .0212 | .0193 | .0177 |
| 0.36 | .0529 | .0438 | .0374 | .0327 | .0291 | .0261 | .0237 | .0216 | .0197 | .0181 |
| 0.37 | .0538 | .0446 | .0381 | .0333 | .0296 | .0266 | .0241 | .0220 | .0201 | .0184 |
| 0.38 | .0548 | .0454 | .0389 | .0340 | .0302 | .0272 | .0246 | .0224 | .0205 | .0188 |
| 0.39 | .0558 | .0463 | .0396 | .0347 | .0308 | .0277 | .0251 | .0229 | .0209 | .0192 |
| 0.40 | .0569 | .0472 | .0404 | .0354 | .0315 | .0283 | .0256 | .0234 | .0213 | .0196 |
| 0.41 | .0581 | .0482 | .0413 | .0361 | .0322 | .0289 | .0262 | .0239 | .0218 | .0200 |
| 0.42 | .0593 | .0492 | .0422 | .0369 | .0329 | .0296 | .0268 | .0244 | .0223 | .0205 |
| 0.43 | .0606 | .0503 | .0431 | .0378 | .0337 | .0303 | .0274 | .0250 | .0228 | .0209 |
| 0.44 | .0619 | .0515 | .0442 | .0387 | .0345 | .0310 | .0281 | .0256 | .0234 | .0215 |
| 0.45 | .0634 | .0528 | .0453 | .0397 | .0354 | .0318 | .0288 | .0263 | .0240 | .0220 |
| 0.46 | .0650 | .0541 | .0465 | .0408 | .0363 | .0327 | .0297 | .0270 | .0247 | .0227 |
| 0.47 | .0667 | .0556 | .0478 | .0420 | .0374 | .0337 | .0306 | .0278 | .0254 | .0233 |
| 0.48 | .0686 | .0573 | .0492 | .0432 | .0385 | .0347 | .0315 | .0287 | .0262 | .0241 |
| 0.49 | .0706 | .0590 | .0508 | .0446 | .0398 | .0358 | .0325 | .0296 | .0271 | .0249 |
| 0.50 | .0729 | .0610 | .0525 | .0462 | .0412 | .0371 | .0337 | .0307 | .0281 | .0257 |
| 0.51 | .0754 | .0631 | .0544 | .0478 | .0427 | .0385 | .0349 | .0318 | .0291 | .0267 |
| 0.52 | .0781 | .0655 | .0565 | .0497 | .0444 | .0400 | .0363 | .0331 | .0303 | .0278 |
| 0.53 | .0810 | .0680 | .0587 | .0517 | .0462 | .0417 | .0378 | .0345 | .0318 | .0290 |
| 0.54 | .0842 | .0708 | .0612 | .0540 | .0482 | .0435 | .0395 | .0360 | .0330 | .0303 |
| 0.55 | .0877 | .0739 | .0639 | .0564 | .0504 | .0455 | .0413 | .0377 | .0345 | .0317 |
| 0.56 | .0914 | .0771 | .0668 | .0590 | .0528 | .0476 | .0433 | .0395 | .0361 | .0332 |
| 0.57 | .0953 | .0805 | .0698 | .0617 | .0552 | .0499 | .0453 | .0414 | .0379 | .0348 |
| 0.58 | .0994 | .0841 | .0730 | .0646 | .0578 | .0523 | .0475 | .0434 | .0397 | .0364 |
| 0.59 | .1036 | .0878 | .0763 | .0676 | .0606 | .0547 | .0498 | .0454 | .0416 | .0382 |
| 0.60 | .1079 | .0918 | .0798 | .0707 | .0634 | .0573 | .0521 | .0476 | .0436 | .0400 |

TIME BETWEEN MEASUREMENTS = 120 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .9368 | .8795 | .8273 | .7796 | .7359 | .6958 | .6589 | .6249 | .5935 | .5645 |
| 0.31 | .9375 | .8806 | .8288 | .7814 | .7380 | .6981 | .6614 | .6275 | .5963 | .5674 |
| 0.32 | .9381 | .8817 | .8303 | .7833 | .7401 | .7004 | .6639 | .6302 | .5991 | .5703 |
| 0.33 | .9387 | .8829 | .8319 | .7852 | .7423 | .7028 | .6665 | .6330 | .6020 | .5734 |
| 0.34 | .9393 | .8840 | .8334 | .7871 | .7445 | .7053 | .6692 | .6359 | .6050 | .5765 |
| 0.35 | .9400 | .8852 | .8351 | .7891 | .7468 | .7079 | .6720 | .6388 | .6081 | .5797 |
| 0.36 | .9406 | .8864 | .8367 | .7911 | .7492 | .7105 | .6749 | .6419 | .6114 | .5831 |
| 0.37 | .9413 | .8877 | .8385 | .7932 | .7516 | .7133 | .6778 | .6451 | .6148 | .5867 |
| 0.38 | .9420 | .8889 | .8402 | .7954 | .7542 | .7161 | .6810 | .6484 | .6183 | .5904 |
| 0.39 | .9428 | .8903 | .8421 | .7977 | .7569 | .7191 | .6843 | .6520 | .6220 | .5943 |
| 0.40 | .9435 | .8917 | .8440 | .8002 | .7597 | .7223 | .6877 | .6557 | .6260 | .5984 |
| 0.41 | .9443 | .8931 | .8461 | .8027 | .7626 | .7258 | .6913 | .6596 | .6301 | .6027 |
| 0.42 | .9451 | .8947 | .8482 | .8054 | .7658 | .7291 | .6952 | .6637 | .6345 | .6073 |
| 0.43 | .9460 | .8963 | .8505 | .8082 | .7691 | .7329 | .6993 | .6681 | .6392 | .6122 |
| 0.44 | .9469 | .8980 | .8529 | .8112 | .7726 | .7368 | .7037 | .6728 | .6442 | .6175 |
| 0.45 | .9479 | .8998 | .8554 | .8144 | .7763 | .7411 | .7083 | .6779 | .6495 | .6231 |
| 0.46 | .9489 | .9017 | .8581 | .8177 | .7803 | .7455 | .7132 | .6832 | .6552 | .6290 |
| 0.47 | .9500 | .9037 | .8609 | .8213 | .7845 | .7503 | .7185 | .6888 | .6612 | .6353 |
| 0.48 | .9511 | .9059 | .8639 | .8250 | .7889 | .7553 | .7240 | .6948 | .6675 | .6420 |
| 0.49 | .9523 | .9080 | .8670 | .8289 | .7935 | .7605 | .7297 | .7009 | .6741 | .6489 |
| 0.50 | .9535 | .9103 | .8702 | .8329 | .7982 | .7658 | .7356 | .7073 | .6809 | .6561 |
| 0.51 | .9547 | .9126 | .8734 | .8370 | .8030 | .7713 | .7416 | .7139 | .6879 | .6634 |
| 0.52 | .9559 | .9149 | .8767 | .8411 | .8079 | .7769 | .7477 | .7205 | .6949 | .6709 |
| 0.53 | .9571 | .9172 | .8800 | .8453 | .8128 | .7824 | .7539 | .7271 | .7020 | .6783 |
| 0.54 | .9583 | .9195 | .8833 | .8494 | .8176 | .7879 | .7600 | .7337 | .7090 | .6857 |
| 0.55 | .9595 | .9218 | .8865 | .8534 | .8224 | .7933 | .7660 | .7402 | .7160 | .6931 |
| 0.56 | .9607 | .9240 | .8896 | .8574 | .8271 | .7987 | .7719 | .7468 | .7228 | .7003 |
| 0.57 | .9619 | .9262 | .8927 | .8613 | .8317 | .8039 | .7777 | .7529 | .7295 | .7074 |
| 0.58 | .9630 | .9283 | .8957 | .8651 | .8362 | .8090 | .7834 | .7591 | .7361 | .7143 |
| 0.59 | .9641 | .9304 | .8987 | .8688 | .8407 | .8141 | .7889 | .7651 | .7426 | .7211 |
| 0.60 | .9652 | .9324 | .9015 | .8724 | .8450 | .8190 | .7943 | .7710 | .7488 | .7278 |

TIME BETWEEN MEASUREMENTS = 120 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .5377 | .5129 | .4898 | .4684 | .4484 | .4299 | .4125 | .3964 | .3812 | .3671 |
| 0.31 | .5406 | .5159 | .4928 | .4715 | .4518 | .4330 | .4157 | .3995 | .3844 | .3703 |
| 0.32 | .5437 | .5190 | .4960 | .4747 | .4548 | .4363 | .4190 | .4028 | .3877 | .3735 |
| 0.33 | .5468 | .5222 | .4993 | .4780 | .4582 | .4397 | .4224 | .4063 | .3911 | .3770 |
| 0.34 | .5500 | .5255 | .5027 | .4814 | .4616 | .4432 | .4259 | .4098 | .3947 | .3805 |
| 0.35 | .5534 | .5289 | .5062 | .4850 | .4653 | .4469 | .4296 | .4135 | .3984 | .3842 |
| 0.36 | .5569 | .5325 | .5099 | .4888 | .4691 | .4507 | .4335 | .4174 | .4023 | .3881 |
| 0.37 | .5606 | .5363 | .5137 | .4927 | .4730 | .4547 | .4375 | .4214 | .4064 | .3922 |
| 0.38 | .5644 | .5403 | .5178 | .4968 | .4772 | .4589 | .4418 | .4257 | .4106 | .3965 |
| 0.39 | .5684 | .5444 | .5220 | .5011 | .4816 | .4634 | .4463 | .4302 | .4152 | .4010 |
| 0.40 | .5727 | .5488 | .5265 | .5057 | .4863 | .4681 | .4510 | .4350 | .4200 | .4058 |
| 0.41 | .5772 | .5535 | .5313 | .5106 | .4912 | .4731 | .4561 | .4401 | .4251 | .4109 |
| 0.42 | .5820 | .5584 | .5364 | .5158 | .4965 | .4784 | .4615 | .4455 | .4305 | .4164 |
| 0.43 | .5871 | .5637 | .5418 | .5213 | .5021 | .4841 | .4672 | .4513 | .4363 | .4222 |
| 0.44 | .5826 | .5693 | .5476 | .5272 | .5081 | .4902 | .4734 | .4575 | .4425 | .4284 |
| 0.45 | .5984 | .5753 | .5538 | .5335 | .5145 | .4967 | .4799 | .4641 | .4492 | .4351 |
| 0.46 | .6046 | .5818 | .5603 | .5403 | .5214 | .5037 | .4869 | .4712 | .4563 | .4422 |
| 0.47 | .6112 | .5888 | .5673 | .5474 | .5287 | .5110 | .4944 | .4787 | .4639 | .4498 |
| 0.48 | .6181 | .5957 | .5747 | .5550 | .5364 | .5188 | .5023 | .4868 | .4718 | .4578 |
| 0.49 | .6253 | .6032 | .5824 | .5628 | .5444 | .5270 | .5105 | .4949 | .4802 | .4662 |
| 0.50 | .6328 | .6110 | .5904 | .5710 | .5527 | .5354 | .5190 | .5035 | .4888 | .4748 |
| 0.51 | .6405 | .6189 | .5985 | .5793 | .5612 | .5440 | .5278 | .5124 | .4977 | .4838 |
| 0.52 | .6482 | .6269 | .6068 | .5878 | .5699 | .5528 | .5367 | .5213 | .5067 | .4929 |
| 0.53 | .6560 | .6350 | .6151 | .5963 | .5785 | .5616 | .5456 | .5303 | .5158 | .5020 |
| 0.54 | .6638 | .6430 | .6234 | .6048 | .5872 | .5704 | .5545 | .5393 | .5249 | .5111 |
| 0.55 | .6714 | .6510 | .6316 | .6132 | .5957 | .5791 | .5633 | .5482 | .5339 | .5201 |
| 0.56 | .6790 | .6588 | .6397 | .6215 | .6042 | .5877 | .5720 | .5570 | .5427 | .5290 |
| 0.57 | .6864 | .6665 | .6476 | .6296 | .6125 | .5962 | .5806 | .5657 | .5514 | .5378 |
| 0.58 | .6937 | .6740 | .6554 | .6376 | .6206 | .6044 | .5889 | .5742 | .5600 | .5464 |
| 0.59 | .7008 | .6814 | .6630 | .6454 | .6286 | .6126 | .5972 | .5825 | .5684 | .5549 |
| 0.60 | .7077 | .6887 | .6704 | .6531 | .6364 | .6205 | .6053 | .5907 | .5767 | .5633 |

Scanned by: SouthernRadiation.com

TIME BETWEEN MEASUREMENTS = 120 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .3296 | .2984 | .2720 | .2494 | .2300 | .2131 | .1981 | .1849 | .1731 | .1624 |
| 0.31 | .3327 | .3014 | .2749 | .2523 | .2328 | .2157 | .2007 | .1873 | .1754 | .1647 |
| 0.32 | .3360 | .3046 | .2780 | .2553 | .2356 | .2184 | .2033 | .1898 | .1778 | .1670 |
| 0.33 | .3394 | .3079 | .2812 | .2584 | .2386 | .2213 | .2060 | .1925 | .1803 | .1694 |
| 0.34 | .3429 | .3113 | .2846 | .2616 | .2417 | .2243 | .2089 | .1952 | .1830 | .1719 |
| 0.35 | .3466 | .3149 | .2881 | .2650 | .2450 | .2274 | .2119 | .1981 | .1857 | .1745 |
| 0.36 | .3504 | .3187 | .2917 | .2686 | .2484 | .2307 | .2151 | .2011 | .1886 | .1773 |
| 0.37 | .3545 | .3227 | .2956 | .2723 | .2520 | .2342 | .2184 | .2043 | .1917 | .1802 |
| 0.38 | .3587 | .3269 | .2997 | .2762 | .2558 | .2378 | .2219 | .2077 | .1949 | .1833 |
| 0.39 | .3632 | .3313 | .3040 | .2804 | .2598 | .2417 | .2256 | .2113 | .1983 | .1866 |
| 0.40 | .3680 | .3360 | .3086 | .2848 | .2641 | .2458 | .2296 | .2151 | .2020 | .1901 |
| 0.41 | .3731 | .3410 | .3134 | .2896 | .2687 | .2502 | .2338 | .2191 | .2059 | .1939 |
| 0.42 | .3785 | .3463 | .3186 | .2946 | .2736 | .2549 | .2384 | .2235 | .2100 | .1979 |
| 0.43 | .3843 | .3520 | .3242 | .3000 | .2788 | .2600 | .2432 | .2281 | .2145 | .2022 |
| 0.44 | .3905 | .3581 | .3302 | .3059 | .2844 | .2654 | .2484 | .2332 | .2194 | .2068 |
| 0.45 | .3972 | .3647 | .3366 | .3121 | .2905 | .2712 | .2541 | .2386 | .2248 | .2118 |
| 0.46 | .4043 | .3717 | .3435 | .3188 | .2969 | .2775 | .2601 | .2444 | .2301 | .2172 |
| 0.47 | .4119 | .3792 | .3508 | .3259 | .3038 | .2842 | .2665 | .2506 | .2361 | .2229 |
| 0.48 | .4199 | .3871 | .3588 | .3334 | .3112 | .2912 | .2733 | .2572 | .2425 | .2290 |
| 0.49 | .4283 | .3954 | .3667 | .3414 | .3188 | .2987 | .2805 | .2641 | .2491 | .2355 |
| 0.50 | .4370 | .4040 | .3751 | .3496 | .3269 | .3064 | .2880 | .2713 | .2561 | .2422 |
| 0.51 | .4459 | .4129 | .3838 | .3581 | .3351 | .3144 | .2958 | .2788 | .2633 | .2492 |
| 0.52 | .4550 | .4219 | .3927 | .3667 | .3435 | .3226 | .3037 | .2864 | .2707 | .2563 |
| 0.53 | .4641 | .4309 | .4016 | .3755 | .3520 | .3309 | .3117 | .2942 | .2782 | .2636 |
| 0.54 | .4733 | .4400 | .4105 | .3842 | .3605 | .3391 | .3197 | .3020 | .2858 | .2709 |
| 0.55 | .4823 | .4490 | .4194 | .3929 | .3690 | .3474 | .3278 | .3098 | .2933 | .2782 |
| 0.56 | .4913 | .4580 | .4282 | .4016 | .3775 | .3557 | .3358 | .3176 | .3009 | .2858 |
| 0.57 | .5002 | .4668 | .4370 | .4101 | .3859 | .3638 | .3437 | .3253 | .3084 | .2929 |
| 0.58 | .5099 | .4755 | .4456 | .4186 | .3942 | .3719 | .3516 | .3330 | .3159 | .3001 |
| 0.59 | .5175 | .4841 | .4540 | .4269 | .4023 | .3799 | .3594 | .3406 | .3233 | .3074 |
| 0.60 | .5259 | .4925 | .4624 | .4352 | .4104 | .3879 | .3672 | .3482 | .3307 | .3146 |

TIME BETWEEN MEASUREMENTS = 120 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1469 | .1336 | .1221 | .1121 | .1034 | .0957 | .0889 | .0828 | .0775 | .0727 |
| 0.31 | .1490 | .1355 | .1239 | .1138 | .1049 | .0971 | .0902 | .0841 | .0787 | .0738 |
| 0.32 | .1511 | .1375 | .1258 | .1155 | .1066 | .0987 | .0917 | .0855 | .0800 | .0751 |
| 0.33 | .1534 | .1396 | .1277 | .1174 | .1083 | .1003 | .0932 | .0869 | .0813 | .0763 |
| 0.34 | .1557 | .1418 | .1298 | .1193 | .1101 | .1019 | .0948 | .0884 | .0827 | .0777 |
| 0.35 | .1582 | .1441 | .1319 | .1213 | .1119 | .1037 | .0964 | .0900 | .0842 | .0791 |
| 0.36 | .1607 | .1465 | .1342 | .1234 | .1139 | .1056 | .0982 | .0917 | .0858 | .0806 |
| 0.37 | .1635 | .1490 | .1365 | .1256 | .1160 | .1075 | .1001 | .0934 | .0875 | .0822 |
| 0.38 | .1664 | .1517 | .1390 | .1280 | .1182 | .1096 | .1020 | .0953 | .0893 | .0839 |
| 0.39 | .1694 | .1546 | .1417 | .1305 | .1206 | .1119 | .1041 | .0973 | .0912 | .0857 |
| 0.40 | .1727 | .1577 | .1446 | .1332 | .1231 | .1142 | .1064 | .0994 | .0932 | .0876 |
| 0.41 | .1762 | .1609 | .1476 | .1360 | .1258 | .1168 | .1088 | .1017 | .0954 | .0897 |
| 0.42 | .1799 | .1644 | .1509 | .1391 | .1287 | .1195 | .1114 | .1042 | .0977 | .0919 |
| 0.43 | .1840 | .1682 | .1545 | .1424 | .1319 | .1225 | .1142 | .1068 | .1002 | .0943 |
| 0.44 | .1883 | .1723 | .1583 | .1460 | .1352 | .1257 | .1172 | .1097 | .1030 | .0970 |
| 0.45 | .1830 | .1767 | .1624 | .1499 | .1389 | .1292 | .1205 | .1128 | .1060 | .0998 |
| 0.46 | .1980 | .1814 | .1669 | .1541 | .1429 | .1329 | .1241 | .1162 | .1092 | .1029 |
| 0.47 | .2034 | .1864 | .1718 | .1586 | .1471 | .1369 | .1279 | .1199 | .1127 | .1062 |
| 0.48 | .2091 | .1919 | .1767 | .1634 | .1517 | .1413 | .1320 | .1238 | .1164 | .1098 |
| 0.49 | .2152 | .1976 | .1821 | .1685 | .1565 | .1458 | .1364 | .1279 | .1204 | .1138 |
| 0.50 | .2216 | .2035 | .1878 | .1739 | .1616 | .1507 | .1410 | .1323 | .1246 | .1178 |
| 0.51 | .2281 | .2098 | .1936 | .1794 | .1668 | .1557 | .1458 | .1369 | .1290 | .1218 |
| 0.52 | .2349 | .2161 | .1997 | .1852 | .1723 | .1609 | .1507 | .1416 | .1335 | .1262 |
| 0.53 | .2417 | .2228 | .2059 | .1910 | .1779 | .1662 | .1558 | .1465 | .1382 | .1307 |
| 0.54 | .2487 | .2292 | .2121 | .1970 | .1835 | .1716 | .1610 | .1515 | .1429 | .1353 |
| 0.55 | .2556 | .2358 | .2184 | .2030 | .1893 | .1771 | .1662 | .1565 | .1478 | .1399 |
| 0.56 | .2626 | .2425 | .2247 | .2090 | .1950 | .1826 | .1715 | .1616 | .1527 | .1447 |
| 0.57 | .2698 | .2491 | .2310 | .2150 | .2009 | .1882 | .1769 | .1668 | .1577 | .1495 |
| 0.58 | .2785 | .2557 | .2374 | .2211 | .2067 | .1938 | .1823 | .1719 | .1627 | .1543 |
| 0.59 | .2834 | .2623 | .2437 | .2272 | .2125 | .1994 | .1877 | .1772 | .1677 | .1592 |
| 0.60 | .2903 | .2690 | .2501 | .2333 | .2184 | .2051 | .1931 | .1824 | .1728 | .1641 |

TIME BETWEEN MEASUREMENTS = 120 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0680 | .0481 | .0412 | .0361 | .0321 | .0289 | .0262 | .0238 | .0218 | .0200 |
| 0.31 | .0589 | .0490 | .0419 | .0367 | .0327 | .0294 | .0268 | .0243 | .0222 | .0203 |
| 0.32 | .0500 | .0498 | .0427 | .0374 | .0333 | .0300 | .0271 | .0247 | .0226 | .0207 |
| 0.33 | .0610 | .0508 | .0435 | .0381 | .0339 | .0305 | .0277 | .0252 | .0231 | .0211 |
| 0.34 | .0622 | .0617 | .0444 | .0389 | .0346 | .0312 | .0282 | .0257 | .0235 | .0216 |
| 0.35 | .0633 | .0527 | .0453 | .0397 | .0353 | .0318 | .0288 | .0263 | .0240 | .0220 |
| 0.36 | .0646 | .0638 | .0462 | .0405 | .0361 | .0325 | .0295 | .0268 | .0245 | .0225 |
| 0.37 | .0659 | .0550 | .0472 | .0414 | .0369 | .0332 | .0301 | .0275 | .0251 | .0230 |
| 0.38 | .0673 | .0662 | .0483 | .0424 | .0378 | .0340 | .0308 | .0281 | .0257 | .0236 |
| 0.39 | .0688 | .0575 | .0494 | .0434 | .0387 | .0349 | .0316 | .0288 | .0263 | .0242 |
| 0.40 | .0705 | .0689 | .0607 | .0445 | .0397 | .0358 | .0324 | .0296 | .0270 | .0248 |
| 0.41 | .0722 | .0604 | .0520 | .0457 | .0408 | .0367 | .0333 | .0304 | .0278 | .0255 |
| 0.42 | .0741 | .0620 | .0534 | .0470 | .0419 | .0378 | .0343 | .0313 | .0286 | .0262 |
| 0.43 | .0761 | .0638 | .0650 | .0484 | .0432 | .0389 | .0353 | .0322 | .0295 | .0270 |
| 0.44 | .0784 | .0657 | .0667 | .0499 | .0448 | .0402 | .0365 | .0333 | .0304 | .0279 |
| 0.45 | .0808 | .0678 | .0685 | .0516 | .0461 | .0415 | .0377 | .0344 | .0315 | .0289 |
| 0.46 | .0834 | .0701 | .0606 | .0634 | .0477 | .0430 | .0391 | .0356 | .0328 | .0299 |
| 0.47 | .0862 | .0726 | .0628 | .0653 | .0495 | .0447 | .0406 | .0370 | .0339 | .0311 |
| 0.48 | .0893 | .0752 | .0651 | .0675 | .0614 | .0464 | .0422 | .0385 | .0352 | .0323 |
| 0.49 | .0925 | .0781 | .0677 | .0698 | .0635 | .0483 | .0439 | .0400 | .0368 | .0336 |
| 0.50 | .0960 | .0811 | .0704 | .0722 | .0657 | .0503 | .0457 | .0417 | .0382 | .0350 |
| 0.51 | .0996 | .0843 | .0732 | .0747 | .0680 | .0524 | .0476 | .0435 | .0398 | .0365 |
| 0.52 | .1034 | .0876 | .0762 | .0774 | .0704 | .0548 | .0497 | .0453 | .0415 | .0381 |
| 0.53 | .1073 | .0910 | .0792 | .0802 | .0729 | .0569 | .0518 | .0473 | .0433 | .0397 |
| 0.54 | .1112 | .0946 | .0824 | .0830 | .0755 | .0593 | .0539 | .0492 | .0451 | .0414 |
| 0.55 | .1153 | .0982 | .0856 | .0860 | .0782 | .0617 | .0561 | .0513 | .0470 | .0431 |
| 0.56 | .1195 | .1019 | .0889 | .0890 | .0809 | .0642 | .0584 | .0534 | .0489 | .0449 |
| 0.57 | .1237 | .1056 | .0923 | .0920 | .0837 | .0667 | .0607 | .0555 | .0509 | .0467 |
| 0.58 | .1279 | .1094 | .0957 | .0951 | .0865 | .0693 | .0631 | .0577 | .0529 | .0485 |
| 0.59 | .1322 | .1133 | .0992 | .0983 | .0894 | .0719 | .0655 | .0599 | .0549 | .0504 |
| 0.60 | .1366 | .1172 | .1028 | .0915 | .0823 | .0748 | .0680 | .0622 | .0570 | .0523 |

TIME BETWEEN MEASUREMENTS = 150 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .9454 | .8952 | .8490 | .8063 | .7668 | .7303 | .6965 | .6652 | .6360 | .6089 |
| 0.31 | .9461 | .8964 | .8507 | .8084 | .7693 | .7332 | .6996 | .6685 | .6396 | .6126 |
| 0.32 | .9467 | .8977 | .8524 | .8106 | .7719 | .7361 | .7029 | .6720 | .6432 | .6165 |
| 0.33 | .9475 | .8990 | .8543 | .8129 | .7747 | .7392 | .7062 | .6758 | .6471 | .6206 |
| 0.34 | .9482 | .9004 | .8562 | .8154 | .7775 | .7424 | .7098 | .6795 | .6512 | .6249 |
| 0.35 | .9490 | .9018 | .8583 | .8179 | .7805 | .7458 | .7135 | .6835 | .6555 | .6294 |
| 0.36 | .9498 | .9034 | .8604 | .8206 | .7837 | .7494 | .7175 | .6878 | .6601 | .6342 |
| 0.37 | .9506 | .9050 | .8627 | .8235 | .7871 | .7532 | .7217 | .6923 | .6649 | .6393 |
| 0.38 | .9515 | .9067 | .8651 | .8265 | .7908 | .7572 | .7261 | .6971 | .6700 | .6446 |
| 0.39 | .9525 | .9084 | .8676 | .8296 | .7943 | .7614 | .7308 | .7021 | .6753 | .6502 |
| 0.40 | .9535 | .9103 | .8702 | .8329 | .7982 | .7658 | .7356 | .7074 | .6809 | .6561 |
| 0.41 | .9545 | .9122 | .8729 | .8364 | .8023 | .7704 | .7407 | .7129 | .6868 | .6623 |
| 0.42 | .9555 | .9142 | .8757 | .8399 | .8064 | .7752 | .7459 | .7185 | .6928 | .6686 |
| 0.43 | .9566 | .9162 | .8786 | .8435 | .8107 | .7800 | .7512 | .7243 | .6989 | .6751 |
| 0.44 | .9577 | .9183 | .8815 | .8471 | .8150 | .7849 | .7568 | .7301 | .7052 | .6817 |
| 0.45 | .9588 | .9203 | .8844 | .8508 | .8193 | .7898 | .7620 | .7360 | .7114 | .6883 |
| 0.48 | .9598 | .9223 | .8872 | .8544 | .8236 | .7948 | .7674 | .7418 | .7178 | .6948 |
| 0.47 | .9609 | .9243 | .8901 | .8580 | .8278 | .7994 | .7727 | .7476 | .7238 | .7013 |
| 0.48 | .9619 | .9263 | .8929 | .8615 | .8319 | .8042 | .7780 | .7532 | .7299 | .7077 |
| 0.49 | .9630 | .9282 | .8956 | .8649 | .8360 | .8088 | .7831 | .7588 | .7358 | .7140 |
| 0.50 | .9639 | .9301 | .8982 | .8683 | .8400 | .8133 | .7881 | .7642 | .7416 | .7201 |
| 0.51 | .9649 | .9319 | .9008 | .8715 | .8439 | .8177 | .7930 | .7695 | .7473 | .7261 |
| 0.52 | .9658 | .9337 | .9033 | .8747 | .8478 | .8220 | .7977 | .7747 | .7528 | .7318 |
| 0.53 | .9668 | .9354 | .9058 | .8778 | .8513 | .8262 | .8023 | .7797 | .7581 | .7378 |
| 0.54 | .9678 | .9371 | .9082 | .8808 | .8549 | .8302 | .8068 | .7848 | .7634 | .7432 |
| 0.55 | .9685 | .9387 | .9105 | .8837 | .8583 | .8342 | .8112 | .7893 | .7685 | .7485 |
| 0.56 | .9693 | .9403 | .9127 | .8866 | .8617 | .8380 | .8155 | .7940 | .7734 | .7538 |
| 0.57 | .9701 | .9418 | .9149 | .8893 | .8650 | .8418 | .8198 | .7985 | .7783 | .7589 |
| 0.58 | .9709 | .9433 | .9170 | .8920 | .8682 | .8454 | .8237 | .8029 | .7830 | .7640 |
| 0.59 | .9717 | .9448 | .9191 | .8946 | .8713 | .8490 | .8277 | .8072 | .7877 | .7689 |
| 0.60 | .9724 | .9462 | .9211 | .8972 | .8744 | .8525 | .8316 | .8115 | .7922 | .7737 |

TIME BETWEEN MEASUREMENTS = 150 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .5837 | .5601 | .5381 | .5176 | .4983 | .4803 | .4633 | .4474 | .4324 | .4183 |
| 0.31 | .5875 | .5641 | .5422 | .5217 | .5026 | .4846 | .4676 | .4517 | .4368 | .4226 |
| 0.32 | .5916 | .5683 | .5465 | .5261 | .5070 | .4891 | .4722 | .4563 | .4414 | .4272 |
| 0.33 | .5958 | .5726 | .5510 | .5307 | .5117 | .4938 | .4770 | .4611 | .4462 | .4321 |
| 0.34 | .6003 | .5773 | .5557 | .5355 | .5166 | .4988 | .4820 | .4662 | .4513 | .4372 |
| 0.35 | .6050 | .5821 | .5607 | .5407 | .5218 | .5041 | .4874 | .4716 | .4567 | .4427 |
| 0.36 | .6100 | .5873 | .5661 | .5461 | .5273 | .5097 | .4930 | .4773 | .4625 | .4484 |
| 0.37 | .6153 | .5928 | .5717 | .5518 | .5332 | .5156 | .4990 | .4834 | .4685 | .4545 |
| 0.38 | .6208 | .5985 | .5776 | .5579 | .5394 | .5219 | .5054 | .4898 | .4750 | .4610 |
| 0.39 | .6267 | .6046 | .5839 | .5643 | .5459 | .5285 | .5121 | .4965 | .4818 | .4678 |
| 0.40 | .6329 | .6110 | .5904 | .5710 | .5527 | .5354 | .5191 | .5036 | .4889 | .4749 |
| 0.41 | .6393 | .6176 | .5973 | .5780 | .5599 | .5427 | .5264 | .5110 | .4963 | .4824 |
| 0.42 | .6459 | .6245 | .6043 | .5853 | .5672 | .5502 | .5340 | .5186 | .5040 | .4901 |
| 0.43 | .6527 | .6315 | .6115 | .5927 | .5748 | .5578 | .5417 | .5264 | .5119 | .4980 |
| 0.44 | .6595 | .6386 | .6189 | .6002 | .5824 | .5656 | .5498 | .5344 | .5199 | .5061 |
| 0.45 | .6664 | .6458 | .6262 | .6077 | .5901 | .5734 | .5575 | .5424 | .5280 | .5142 |
| 0.46 | .6733 | .6529 | .6335 | .6152 | .5978 | .5812 | .5654 | .5504 | .5360 | .5223 |
| 0.47 | .6801 | .6599 | .6408 | .6226 | .6054 | .5889 | .5732 | .5583 | .5440 | .5303 |
| 0.48 | .6868 | .6669 | .6480 | .6300 | .6129 | .5965 | .5810 | .5661 | .5518 | .5382 |
| 0.49 | .6933 | .6737 | .6550 | .6372 | .6202 | .6040 | .5888 | .5738 | .5596 | .5460 |
| 0.50 | .6997 | .6803 | .6619 | .6442 | .6274 | .6114 | .5960 | .5813 | .5672 | .5537 |
| 0.51 | .7060 | .6868 | .6686 | .6511 | .6345 | .6185 | .6033 | .5887 | .5746 | .5611 |
| 0.52 | .7121 | .6932 | .6751 | .6579 | .6413 | .6255 | .6104 | .5959 | .5819 | .5685 |
| 0.53 | .7180 | .6994 | .6815 | .6644 | .6481 | .6324 | .6173 | .6029 | .5890 | .5757 |
| 0.54 | .7238 | .7054 | .6877 | .6708 | .6546 | .6391 | .6241 | .6098 | .5960 | .5827 |
| 0.55 | .7295 | .7113 | .6938 | .6771 | .6610 | .6456 | .6308 | .6165 | .6028 | .5896 |
| 0.56 | .7350 | .7170 | .6999 | .6832 | .6673 | .6520 | .6373 | .6231 | .6095 | .5963 |
| 0.57 | .7404 | .7226 | .7056 | .6892 | .6734 | .6583 | .6437 | .6296 | .6160 | .6029 |
| 0.58 | .7457 | .7281 | .7113 | .6951 | .6795 | .6644 | .6499 | .6360 | .6225 | .6094 |
| 0.59 | .7509 | .7335 | .7169 | .7008 | .6854 | .6705 | .6561 | .6422 | .6288 | .6159 |
| 0.60 | .7559 | .7388 | .7224 | .7065 | .6912 | .6764 | .6622 | .6484 | .6351 | .6222 |

TIME BETWEEN MEASUREMENTS = 150 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .3804 | .3482 | .3205 | .2964 | .2753 | .2566 | .2399 | .2250 | .2115 | .1993 |
| 0.31 | .3847 | .3525 | .3247 | .3005 | .2792 | .2604 | .2438 | .2285 | .2149 | .2025 |
| 0.32 | .3893 | .3570 | .3291 | .3048 | .2834 | .2644 | .2475 | .2322 | .2185 | .2059 |
| 0.33 | .3942 | .3618 | .3337 | .3093 | .2878 | .2686 | .2515 | .2361 | .2222 | .2096 |
| 0.34 | .3893 | .3668 | .3387 | .3141 | .2924 | .2731 | .2559 | .2403 | .2262 | .2134 |
| 0.35 | .4047 | .3722 | .3439 | .3192 | .2973 | .2779 | .2604 | .2447 | .2305 | .2175 |
| 0.36 | .4105 | .3778 | .3495 | .3246 | .3026 | .2829 | .2653 | .2494 | .2350 | .2219 |
| 0.37 | .4166 | .3838 | .3554 | .3303 | .3081 | .2883 | .2705 | .2544 | .2398 | .2265 |
| 0.38 | .4230 | .3902 | .3616 | .3364 | .3140 | .2940 | .2760 | .2598 | .2450 | .2315 |
| 0.39 | .4298 | .3970 | .3682 | .3429 | .3203 | .3001 | .2819 | .2654 | .2504 | .2367 |
| 0.40 | .4370 | .4041 | .3752 | .3496 | .3269 | .3065 | .2881 | .2714 | .2562 | .2423 |
| 0.41 | .4445 | .4115 | .3825 | .3567 | .3338 | .3132 | .2945 | .2776 | .2622 | .2481 |
| 0.42 | .4522 | .4191 | .3900 | .3641 | .3410 | .3201 | .3013 | .2841 | .2685 | .2542 |
| 0.43 | .4602 | .4270 | .3977 | .3717 | .3483 | .3273 | .3082 | .2908 | .2750 | .2604 |
| 0.44 | .4683 | .4350 | .4056 | .3794 | .3559 | .3346 | .3153 | .2977 | .2818 | .2669 |
| 0.45 | .4764 | .4431 | .4136 | .3872 | .3635 | .3420 | .3225 | .3047 | .2884 | .2734 |
| 0.46 | .4845 | .4512 | .4216 | .3950 | .3711 | .3494 | .3297 | .3117 | .2952 | .2800 |
| 0.47 | .4926 | .4593 | .4295 | .4028 | .3787 | .3568 | .3369 | .3187 | .3020 | .2868 |
| 0.48 | .5006 | .4672 | .4374 | .4105 | .3863 | .3642 | .3441 | .3257 | .3088 | .2932 |
| 0.49 | .5085 | .4751 | .4451 | .4182 | .3937 | .3715 | .3512 | .3326 | .3155 | .2998 |
| 0.50 | .5162 | .4828 | .4528 | .4257 | .4011 | .3787 | .3582 | .3395 | .3222 | .3063 |
| 0.51 | .5238 | .4903 | .4603 | .4331 | .4084 | .3858 | .3652 | .3463 | .3288 | .3127 |
| 0.52 | .5312 | .4978 | .4677 | .4404 | .4155 | .3929 | .3721 | .3530 | .3354 | .3191 |
| 0.53 | .5385 | .5051 | .4749 | .4476 | .4226 | .3998 | .3789 | .3596 | .3419 | .3255 |
| 0.54 | .5456 | .5122 | .4820 | .4546 | .4296 | .4066 | .3856 | .3662 | .3483 | .3318 |
| 0.55 | .5528 | .5193 | .4891 | .4616 | .4364 | .4134 | .3922 | .3727 | .3547 | .3380 |
| 0.56 | .5595 | .5262 | .4960 | .4684 | .4432 | .4201 | .3988 | .3792 | .3611 | .3443 |
| 0.57 | .5662 | .5330 | .5028 | .4752 | .4499 | .4267 | .4054 | .3856 | .3674 | .3505 |
| 0.58 | .5729 | .5397 | .5095 | .4819 | .4566 | .4333 | .4119 | .3921 | .3737 | .3567 |
| 0.59 | .5795 | .5464 | .5162 | .4886 | .4633 | .4399 | .4184 | .3985 | .3801 | .3630 |
| 0.60 | .5860 | .5530 | .5229 | .4953 | .4699 | .4465 | .4249 | .4049 | .3864 | .3693 |

TIME BETWEEN MEASUREMENTS = 150 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1812 | .1656 | .1521 | .1402 | .1297 | .1205 | .1123 | .1050 | .0985 | .0927 |
| 0.31 | .1843 | .1685 | .1547 | .1427 | .1321 | .1227 | .1144 | .1070 | .1004 | .0945 |
| 0.32 | .1875 | .1715 | .1576 | .1454 | .1346 | .1251 | .1167 | .1092 | .1025 | .0965 |
| 0.33 | .1909 | .1747 | .1606 | .1482 | .1373 | .1276 | .1190 | .1114 | .1046 | .0985 |
| 0.34 | .1945 | .1781 | .1637 | .1512 | .1401 | .1303 | .1216 | .1138 | .1069 | .1007 |
| 0.35 | .1983 | .1817 | .1671 | .1544 | .1431 | .1331 | .1243 | .1164 | .1094 | .1031 |
| 0.36 | .2024 | .1855 | .1707 | .1578 | .1463 | .1362 | .1272 | .1192 | .1120 | .1056 |
| 0.37 | .2068 | .1896 | .1746 | .1614 | .1498 | .1395 | .1303 | .1221 | .1149 | .1083 |
| 0.38 | .2114 | .1940 | .1787 | .1653 | .1535 | .1430 | .1338 | .1253 | .1179 | .1112 |
| 0.39 | .2164 | .1987 | .1831 | .1695 | .1574 | .1467 | .1372 | .1287 | .1211 | .1143 |
| 0.40 | .2216 | .2036 | .1878 | .1739 | .1616 | .1507 | .1410 | .1323 | .1246 | .1176 |
| 0.41 | .2271 | .2088 | .1927 | .1785 | .1660 | .1549 | .1450 | .1362 | .1283 | .1212 |
| 0.42 | .2328 | .2142 | .1978 | .1834 | .1706 | .1593 | .1492 | .1402 | .1321 | .1249 |
| 0.43 | .2388 | .2198 | .2032 | .1885 | .1755 | .1639 | .1538 | .1444 | .1361 | .1287 |
| 0.44 | .2449 | .2256 | .2086 | .1937 | .1804 | .1686 | .1581 | .1487 | .1403 | .1327 |
| 0.45 | .2511 | .2315 | .2142 | .1990 | .1855 | .1735 | .1628 | .1532 | .1446 | .1369 |
| 0.46 | .2573 | .2374 | .2199 | .2044 | .1907 | .1784 | .1675 | .1577 | .1490 | .1411 |
| 0.47 | .2636 | .2434 | .2256 | .2099 | .1959 | .1834 | .1723 | .1623 | .1534 | .1454 |
| 0.48 | .2699 | .2494 | .2313 | .2153 | .2011 | .1884 | .1771 | .1670 | .1579 | .1497 |
| 0.49 | .2761 | .2554 | .2370 | .2208 | .2064 | .1935 | .1820 | .1717 | .1624 | .1540 |
| 0.50 | .2824 | .2613 | .2428 | .2263 | .2116 | .1986 | .1869 | .1764 | .1669 | .1584 |
| 0.51 | .2886 | .2673 | .2484 | .2317 | .2169 | .2038 | .1918 | .1811 | .1715 | .1628 |
| 0.52 | .2947 | .2732 | .2541 | .2372 | .2221 | .2087 | .1967 | .1858 | .1761 | .1673 |
| 0.53 | .3006 | .2791 | .2598 | .2427 | .2274 | .2138 | .2016 | .1906 | .1807 | .1718 |
| 0.54 | .3069 | .2849 | .2654 | .2481 | .2327 | .2189 | .2065 | .1954 | .1853 | .1763 |
| 0.55 | .3129 | .2908 | .2711 | .2536 | .2380 | .2240 | .2115 | .2002 | .1900 | .1808 |
| 0.56 | .3190 | .2968 | .2767 | .2591 | .2433 | .2292 | .2165 | .2051 | .1948 | .1854 |
| 0.57 | .3250 | .3025 | .2824 | .2646 | .2486 | .2344 | .2215 | .2100 | .1995 | .1901 |
| 0.58 | .3311 | .3084 | .2882 | .2702 | .2541 | .2396 | .2267 | .2150 | .2044 | .1948 |
| 0.59 | .3372 | .3143 | .2939 | .2758 | .2596 | .2450 | .2319 | .2201 | .2094 | .1997 |
| 0.60 | .3433 | .3203 | .2998 | .2815 | .2651 | .2504 | .2372 | .2253 | .2144 | .2046 |

TIME BETWEEN MEASUREMENTS = 150 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .0748 | .0626 | .0639 | .0474 | .0423 | .0382 | .0346 | .0316 | .0289 | .0265 |
| 0.31 | .0763 | .0639 | .0651 | .0485 | .0433 | .0390 | .0354 | .0323 | .0295 | .0271 |
| 0.32 | .0779 | .0654 | .0664 | .0496 | .0443 | .0399 | .0363 | .0331 | .0302 | .0277 |
| 0.33 | .0797 | .0669 | .0577 | .0508 | .0454 | .0409 | .0372 | .0339 | .0310 | .0284 |
| 0.34 | .0815 | .0685 | .0691 | .0621 | .0466 | .0420 | .0381 | .0348 | .0318 | .0292 |
| 0.35 | .0835 | .0702 | .0607 | .0535 | .0478 | .0431 | .0392 | .0357 | .0327 | .0300 |
| 0.36 | .0857 | .0721 | .0624 | .0650 | .0492 | .0444 | .0403 | .0367 | .0338 | .0308 |
| 0.37 | .0880 | .0741 | .0641 | .0566 | .0506 | .0457 | .0415 | .0379 | .0346 | .0318 |
| 0.38 | .0805 | .0763 | .0661 | .0583 | .0522 | .0471 | .0428 | .0390 | .0357 | .0328 |
| 0.39 | .0931 | .0786 | .0681 | .0602 | .0539 | .0486 | .0442 | .0403 | .0369 | .0339 |
| 0.40 | .0960 | .0811 | .0704 | .0622 | .0557 | .0503 | .0457 | .0417 | .0382 | .0350 |
| 0.41 | .0890 | .0838 | .0727 | .0643 | .0576 | .0521 | .0473 | .0432 | .0396 | .0363 |
| 0.42 | .1022 | .0866 | .0753 | .0666 | .0597 | .0539 | .0490 | .0448 | .0410 | .0376 |
| 0.43 | .1056 | .0898 | .0779 | .0690 | .0618 | .0559 | .0508 | .0464 | .0425 | .0390 |
| 0.44 | .1090 | .0826 | .0806 | .0715 | .0641 | .0580 | .0527 | .0481 | .0441 | .0405 |
| 0.45 | .1126 | .0958 | .0835 | .0740 | .0664 | .0601 | .0547 | .0499 | .0457 | .0420 |
| 0.46 | .1163 | .0991 | .0864 | .0767 | .0688 | .0623 | .0567 | .0518 | .0474 | .0435 |
| 0.47 | .1201 | .1024 | .0894 | .0794 | .0713 | .0645 | .0587 | .0537 | .0492 | .0451 |
| 0.48 | .1239 | .1058 | .0825 | .0821 | .0738 | .0668 | .0609 | .0556 | .0510 | .0468 |
| 0.49 | .1277 | .1092 | .0855 | .0849 | .0764 | .0692 | .0630 | .0578 | .0528 | .0484 |
| 0.50 | .1316 | .1127 | .0887 | .0878 | .0790 | .0715 | .0652 | .0598 | .0548 | .0501 |
| 0.51 | .1355 | .1162 | .1018 | .0907 | .0818 | .0740 | .0674 | .0616 | .0565 | .0518 |
| 0.52 | .1394 | .1197 | .1051 | .0936 | .0843 | .0764 | .0696 | .0638 | .0583 | .0536 |
| 0.53 | .1434 | .1233 | .1083 | .0968 | .0870 | .0789 | .0718 | .0657 | .0603 | .0554 |
| 0.54 | .1474 | .1269 | .1116 | .0996 | .0897 | .0814 | .0742 | .0678 | .0622 | .0572 |
| 0.55 | .1515 | .1306 | .1150 | .1026 | .0925 | .0840 | .0765 | .0700 | .0642 | .0590 |
| 0.56 | .1557 | .1344 | .1184 | .1057 | .0954 | .0866 | .0789 | .0722 | .0662 | .0609 |
| 0.57 | .1599 | .1382 | .1219 | .1089 | .0983 | .0892 | .0814 | .0745 | .0683 | .0628 |
| 0.58 | .1642 | .1421 | .1254 | .1122 | .1013 | .0920 | .0839 | .0768 | .0705 | .0647 |
| 0.59 | .1686 | .1461 | .1291 | .1155 | .1043 | .0948 | .0865 | .0792 | .0727 | .0668 |
| 0.60 | .1731 | .1502 | .1328 | .1190 | .1075 | .0977 | .0892 | .0817 | .0749 | .0689 |

TIME BETWEEN MEASUREMENTS = 200 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .9577 | .9184 | .8816 | .8473 | .8152 | .7851 | .7569 | .7304 | .7055 | .6820 |
| 0.31 | .9586 | .9200 | .8840 | .8502 | .8187 | .7891 | .7613 | .7351 | .7105 | .6874 |
| 0.32 | .9595 | .9217 | .8864 | .8533 | .8223 | .7932 | .7658 | .7400 | .7158 | .6929 |
| 0.33 | .9604 | .9234 | .8888 | .8564 | .8259 | .7973 | .7704 | .7450 | .7211 | .6985 |
| 0.34 | .9614 | .9252 | .8913 | .8595 | .8296 | .8015 | .7750 | .7500 | .7264 | .7041 |
| 0.35 | .9623 | .9269 | .8938 | .8626 | .8333 | .8057 | .7797 | .7551 | .7318 | .7098 |
| 0.36 | .9632 | .9287 | .8962 | .8657 | .8370 | .8099 | .7843 | .7601 | .7372 | .7154 |
| 0.37 | .9641 | .9304 | .8986 | .8687 | .8406 | .8140 | .7888 | .7650 | .7424 | .7210 |
| 0.38 | .9650 | .9320 | .9010 | .8717 | .8441 | .8180 | .7933 | .7698 | .7476 | .7265 |
| 0.39 | .9658 | .9336 | .9033 | .8746 | .8476 | .8219 | .7976 | .7746 | .7526 | .7318 |
| 0.40 | .9667 | .9352 | .9055 | .8775 | .8509 | .8257 | .8018 | .7791 | .7576 | .7370 |
| 0.41 | .9675 | .9367 | .9077 | .8802 | .8542 | .8294 | .8059 | .7836 | .7623 | .7420 |
| 0.42 | .9682 | .9382 | .9098 | .8829 | .8573 | .8330 | .8099 | .7879 | .7670 | .7469 |
| 0.43 | .9690 | .9396 | .9118 | .8854 | .8603 | .8365 | .8138 | .7921 | .7714 | .7517 |
| 0.44 | .9697 | .9410 | .9138 | .8879 | .8633 | .8398 | .8175 | .7962 | .7758 | .7563 |
| 0.45 | .9704 | .9423 | .9157 | .8903 | .8661 | .8431 | .8211 | .8001 | .7800 | .7607 |
| 0.46 | .9711 | .9436 | .9175 | .8926 | .8689 | .8462 | .8246 | .8039 | .7841 | .7651 |
| 0.47 | .9717 | .9449 | .9193 | .8949 | .8716 | .8493 | .8280 | .8076 | .7880 | .7693 |
| 0.48 | .9724 | .9461 | .9210 | .8970 | .8741 | .8523 | .8313 | .8112 | .7919 | .7734 |
| 0.49 | .9730 | .9472 | .9227 | .8992 | .8767 | .8551 | .8345 | .8147 | .7957 | .7774 |
| 0.50 | .9736 | .9484 | .9243 | .9012 | .8791 | .8579 | .8376 | .8181 | .7993 | .7813 |
| 0.51 | .9742 | .9495 | .9258 | .9032 | .8815 | .8607 | .8407 | .8214 | .8029 | .7851 |
| 0.52 | .9747 | .9506 | .9274 | .9052 | .8838 | .8633 | .8436 | .8247 | .8064 | .7888 |
| 0.53 | .9753 | .9516 | .9289 | .9071 | .8861 | .8660 | .8466 | .8279 | .8098 | .7925 |
| 0.54 | .9758 | .9528 | .9304 | .9089 | .8884 | .8685 | .8494 | .8310 | .8132 | .7961 |
| 0.55 | .9764 | .9538 | .9318 | .9108 | .8905 | .8710 | .8522 | .8341 | .8166 | .7996 |
| 0.56 | .9769 | .9548 | .9332 | .9126 | .8927 | .8735 | .8550 | .8372 | .8199 | .8032 |
| 0.57 | .9774 | .9556 | .9348 | .9144 | .8949 | .8760 | .8578 | .8402 | .8232 | .8067 |
| 0.58 | .9779 | .9568 | .9360 | .9162 | .8970 | .8785 | .8605 | .8432 | .8264 | .8102 |
| 0.59 | .9784 | .9575 | .9374 | .9179 | .8991 | .8809 | .8633 | .8462 | .8297 | .8137 |
| 0.60 | .9789 | .9585 | .9387 | .9197 | .9012 | .8833 | .8660 | .8492 | .8330 | .8172 |

TIME BETWEEN MEASUREMENTS = 200 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .6599 | .6390 | .6192 | .6005 | .5828 | .5660 | .5500 | .5348 | .5203 | .5065 |
| 0.31 | .6655 | .6448 | .6252 | .6066 | .5890 | .5723 | .5564 | .5413 | .5268 | .5131 |
| 0.32 | .6712 | .6507 | .6313 | .6129 | .5955 | .5789 | .5630 | .5480 | .5336 | .5198 |
| 0.33 | .6771 | .6568 | .6376 | .6194 | .6020 | .5855 | .5698 | .5548 | .5405 | .5268 |
| 0.34 | .6830 | .6630 | .6439 | .6259 | .6087 | .5923 | .5765 | .5617 | .5474 | .5338 |
| 0.35 | .6889 | .6691 | .6503 | .6324 | .6153 | .5990 | .5835 | .5686 | .5544 | .5408 |
| 0.36 | .6948 | .6752 | .6566 | .6389 | .6219 | .6058 | .5903 | .5755 | .5614 | .5478 |
| 0.37 | .7007 | .6813 | .6629 | .6453 | .6285 | .6124 | .5971 | .5824 | .5683 | .5548 |
| 0.38 | .7066 | .6872 | .6690 | .6516 | .6349 | .6190 | .6037 | .5891 | .5751 | .5616 |
| 0.39 | .7120 | .6930 | .6750 | .6577 | .6412 | .6254 | .6102 | .5957 | .5817 | .5683 |
| 0.40 | .7174 | .6987 | .6808 | .6637 | .6473 | .6316 | .6166 | .6021 | .5882 | .5749 |
| 0.41 | .7227 | .7042 | .6865 | .6696 | .6533 | .6377 | .6228 | .6084 | .5945 | .5813 |
| 0.42 | .7278 | .7095 | .6920 | .6752 | .6591 | .6437 | .6288 | .6145 | .6008 | .5875 |
| 0.43 | .7328 | .7147 | .6974 | .6807 | .6646 | .6494 | .6347 | .6205 | .6068 | .5936 |
| 0.44 | .7376 | .7197 | .7026 | .6861 | .6703 | .6550 | .6404 | .6262 | .6126 | .5995 |
| 0.45 | .7423 | .7246 | .7076 | .6913 | .6756 | .6605 | .6459 | .6319 | .6183 | .6052 |
| 0.46 | .7468 | .7293 | .7125 | .6963 | .6808 | .6658 | .6513 | .6374 | .6239 | .6109 |
| 0.47 | .7513 | .7340 | .7173 | .7013 | .6858 | .6709 | .6566 | .6427 | .6293 | .6164 |
| 0.48 | .7556 | .7385 | .7220 | .7061 | .6908 | .6760 | .6617 | .6479 | .6346 | .6217 |
| 0.49 | .7598 | .7428 | .7265 | .7108 | .6956 | .6809 | .6668 | .6531 | .6398 | .6270 |
| 0.50 | .7639 | .7471 | .7310 | .7154 | .7003 | .6858 | .6717 | .6581 | .6449 | .6322 |
| 0.51 | .7679 | .7513 | .7353 | .7199 | .7050 | .6905 | .6766 | .6631 | .6500 | .6373 |
| 0.52 | .7718 | .7554 | .7396 | .7243 | .7095 | .6952 | .6814 | .6679 | .6549 | .6423 |
| 0.53 | .7757 | .7595 | .7438 | .7287 | .7140 | .6998 | .6861 | .6728 | .6599 | .6473 |
| 0.54 | .7795 | .7635 | .7480 | .7330 | .7185 | .7044 | .6908 | .6775 | .6647 | .6523 |
| 0.55 | .7833 | .7674 | .7521 | .7373 | .7229 | .7089 | .6954 | .6823 | .6696 | .6572 |
| 0.56 | .7870 | .7713 | .7562 | .7415 | .7273 | .7135 | .7001 | .6871 | .6744 | .6622 |
| 0.57 | .7907 | .7753 | .7603 | .7457 | .7316 | .7180 | .7047 | .6916 | .6793 | .6671 |
| 0.58 | .7944 | .7792 | .7644 | .7500 | .7360 | .7225 | .7094 | .6966 | .6842 | .6721 |
| 0.59 | .7981 | .7831 | .7685 | .7543 | .7405 | .7271 | .7141 | .7014 | .6891 | .6772 |
| 0.60 | .8019 | .7870 | .7728 | .7586 | .7450 | .7317 | .7186 | .7063 | .6941 | .6823 |

TIME BETWEEN MEASUREMENTS = 200 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .4686 | .4354 | .4060 | .3798 | .3562 | .3350 | .3156 | .2981 | .2820 | .2672 |
| 0.31 | .4753 | .4420 | .4125 | .3861 | .3624 | .3410 | .3215 | .3037 | .2874 | .2725 |
| 0.32 | .4821 | .4488 | .4192 | .3927 | .3688 | .3472 | .3275 | .3096 | .2931 | .2780 |
| 0.33 | .4890 | .4557 | .4260 | .3994 | .3753 | .3536 | .3337 | .3156 | .2990 | .2837 |
| 0.34 | .4961 | .4627 | .4329 | .4062 | .3820 | .3601 | .3400 | .3217 | .3049 | .2895 |
| 0.35 | .5032 | .4698 | .4399 | .4131 | .3887 | .3666 | .3464 | .3280 | .3110 | .2954 |
| 0.36 | .5103 | .4769 | .4469 | .4199 | .3955 | .3732 | .3529 | .3342 | .3171 | .3013 |
| 0.37 | .5173 | .4839 | .4539 | .4268 | .4022 | .3798 | .3593 | .3405 | .3232 | .3072 |
| 0.38 | .5242 | .4908 | .4608 | .4336 | .4088 | .3863 | .3656 | .3467 | .3292 | .3131 |
| 0.39 | .5310 | .4976 | .4675 | .4402 | .4154 | .3927 | .3719 | .3528 | .3352 | .3190 |
| 0.40 | .5377 | .5043 | .4741 | .4468 | .4218 | .3990 | .3781 | .3589 | .3412 | .3248 |
| 0.41 | .5442 | .5108 | .4806 | .4532 | .4282 | .4053 | .3842 | .3649 | .3470 | .3305 |
| 0.42 | .5505 | .5172 | .4870 | .4595 | .4344 | .4114 | .3902 | .3708 | .3528 | .3362 |
| 0.43 | .5567 | .5234 | .4932 | .4656 | .4405 | .4174 | .3961 | .3766 | .3585 | .3417 |
| 0.44 | .5627 | .5295 | .4993 | .4717 | .4464 | .4233 | .4020 | .3823 | .3641 | .3473 |
| 0.45 | .5686 | .5354 | .5052 | .4776 | .4523 | .4291 | .4077 | .3873 | .3696 | .3527 |
| 0.46 | .5744 | .5412 | .5110 | .4834 | .4581 | .4348 | .4133 | .3935 | .3751 | .3581 |
| 0.47 | .5800 | .5469 | .5168 | .4891 | .4638 | .4404 | .4189 | .3990 | .3808 | .3635 |
| 0.48 | .5855 | .5525 | .5224 | .4948 | .4694 | .4460 | .4244 | .4045 | .3860 | .3688 |
| 0.49 | .5909 | .5581 | .5280 | .5004 | .4750 | .4516 | .4299 | .4099 | .3914 | .3741 |
| 0.50 | .5963 | .5635 | .5335 | .5059 | .4805 | .4571 | .4354 | .4153 | .3967 | .3795 |
| 0.51 | .6016 | .5689 | .5389 | .5114 | .4860 | .4625 | .4408 | .4208 | .4021 | .3848 |
| 0.52 | .6068 | .5742 | .5443 | .5168 | .4914 | .4680 | .4463 | .4262 | .4075 | .3902 |
| 0.53 | .6119 | .5795 | .5497 | .5223 | .4969 | .4735 | .4518 | .4317 | .4130 | .3956 |
| 0.54 | .6171 | .5848 | .5551 | .5277 | .5024 | .4790 | .4573 | .4372 | .4185 | .4011 |
| 0.55 | .6222 | .5901 | .5605 | .5332 | .5080 | .4846 | .4629 | .4428 | .4241 | .4068 |
| 0.56 | .6274 | .5954 | .5660 | .5388 | .5136 | .4902 | .4686 | .4485 | .4298 | .4123 |
| 0.57 | .6326 | .6008 | .5715 | .5444 | .5193 | .4960 | .4744 | .4543 | .4356 | .4182 |
| 0.58 | .6378 | .6063 | .5771 | .5501 | .5251 | .5019 | .4803 | .4603 | .4416 | .4242 |
| 0.59 | .6432 | .6118 | .5828 | .5560 | .5311 | .5080 | .4865 | .4664 | .4478 | .4304 |
| 0.60 | .6486 | .6175 | .5887 | .5620 | .5372 | .5142 | .4926 | .4729 | .4543 | .4369 |

TIME BETWEEN MEASUREMENTS = 200 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .2452 | .2259 | .2089 | .1939 | .1807 | .1689 | .1584 | .1490 | .1405 | .1329 |
| 0.31 | .2502 | .2307 | .2135 | .1983 | .1848 | .1728 | .1621 | .1526 | .1440 | .1363 |
| 0.32 | .2554 | .2356 | .2182 | .2028 | .1891 | .1769 | .1661 | .1564 | .1476 | .1398 |
| 0.33 | .2608 | .2408 | .2231 | .2074 | .1936 | .1812 | .1702 | .1603 | .1514 | .1435 |
| 0.34 | .2663 | .2460 | .2281 | .2122 | .1982 | .1856 | .1744 | .1644 | .1554 | .1472 |
| 0.35 | .2720 | .2514 | .2332 | .2171 | .2028 | .1901 | .1787 | .1685 | .1594 | .1511 |
| 0.36 | .2776 | .2568 | .2384 | .2221 | .2076 | .1947 | .1831 | .1728 | .1635 | .1551 |
| 0.37 | .2833 | .2622 | .2436 | .2271 | .2124 | .1993 | .1876 | .1771 | .1676 | .1591 |
| 0.38 | .2889 | .2676 | .2488 | .2321 | .2172 | .2039 | .1921 | .1814 | .1718 | .1631 |
| 0.39 | .2946 | .2730 | .2540 | .2371 | .2220 | .2086 | .1965 | .1857 | .1760 | .1672 |
| 0.40 | .3001 | .2784 | .2592 | .2421 | .2268 | .2132 | .2010 | .1901 | .1802 | .1713 |
| 0.41 | .3057 | .2837 | .2643 | .2470 | .2316 | .2178 | .2055 | .1944 | .1844 | .1754 |
| 0.42 | .3111 | .2890 | .2694 | .2519 | .2364 | .2225 | .2100 | .1987 | .1886 | .1794 |
| 0.43 | .3165 | .2942 | .2744 | .2568 | .2411 | .2271 | .2144 | .2031 | .1928 | .1835 |
| 0.44 | .3219 | .2994 | .2795 | .2617 | .2458 | .2316 | .2189 | .2074 | .1970 | .1876 |
| 0.45 | .3272 | .3046 | .2845 | .2666 | .2506 | .2362 | .2234 | .2117 | .2013 | .1918 |
| 0.46 | .3324 | .3097 | .2894 | .2714 | .2553 | .2408 | .2278 | .2161 | .2055 | .1959 |
| 0.47 | .3377 | .3148 | .2944 | .2762 | .2600 | .2454 | .2323 | .2205 | .2098 | .2001 |
| 0.48 | .3429 | .3199 | .2994 | .2811 | .2647 | .2500 | .2368 | .2249 | .2141 | .2043 |
| 0.49 | .3481 | .3250 | .3044 | .2860 | .2695 | .2547 | .2414 | .2293 | .2184 | .2085 |
| 0.50 | .3533 | .3301 | .3094 | .2909 | .2743 | .2594 | .2460 | .2338 | .2228 | .2128 |
| 0.51 | .3586 | .3352 | .3144 | .2958 | .2792 | .2642 | .2506 | .2384 | .2273 | .2172 |
| 0.52 | .3639 | .3405 | .3196 | .3009 | .2841 | .2690 | .2554 | .2431 | .2319 | .2217 |
| 0.53 | .3692 | .3457 | .3248 | .3060 | .2891 | .2740 | .2602 | .2478 | .2365 | .2263 |
| 0.54 | .3746 | .3511 | .3301 | .3112 | .2943 | .2790 | .2652 | .2527 | .2413 | .2310 |
| 0.55 | .3800 | .3566 | .3355 | .3166 | .2996 | .2842 | .2703 | .2577 | .2463 | .2358 |
| 0.56 | .3858 | .3622 | .3411 | .3221 | .3050 | .2896 | .2756 | .2629 | .2514 | .2408 |
| 0.57 | .3917 | .3680 | .3468 | .3278 | .3106 | .2951 | .2811 | .2683 | .2567 | .2461 |
| 0.58 | .3977 | .3740 | .3528 | .3337 | .3165 | .3009 | .2868 | .2740 | .2623 | .2515 |
| 0.59 | .4039 | .3802 | .3590 | .3399 | .3226 | .3070 | .2928 | .2799 | .2681 | .2573 |
| 0.60 | .4104 | .3868 | .3655 | .3463 | .3290 | .3133 | .2991 | .2861 | .2742 | .2633 |

TIME BETWEEN MEASUREMENTS = 200 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1092 | .0928 | .0808 | .0716 | .0642 | .0581 | .0528 | .0482 | .0442 | .0405 |
| 0.31 | .1121 | .0954 | .0831 | .0737 | .0661 | .0598 | .0544 | .0497 | .0455 | .0418 |
| 0.32 | .1152 | .0981 | .0855 | .0759 | .0681 | .0616 | .0561 | .0512 | .0469 | .0431 |
| 0.33 | .1184 | .1009 | .0881 | .0782 | .0702 | .0635 | .0576 | .0528 | .0484 | .0444 |
| 0.34 | .1217 | .1039 | .0907 | .0806 | .0724 | .0655 | .0597 | .0545 | .0499 | .0459 |
| 0.35 | .1251 | .1069 | .0935 | .0831 | .0747 | .0676 | .0616 | .0563 | .0515 | .0473 |
| 0.36 | .1286 | .1100 | .0963 | .0856 | .0770 | .0697 | .0635 | .0580 | .0532 | .0488 |
| 0.37 | .1321 | .1132 | .0991 | .0882 | .0793 | .0719 | .0655 | .0599 | .0549 | .0504 |
| 0.38 | .1357 | .1164 | .1020 | .0909 | .0816 | .0741 | .0675 | .0617 | .0566 | .0520 |
| 0.39 | .1393 | .1198 | .1050 | .0935 | .0842 | .0763 | .0696 | .0636 | .0583 | .0536 |
| 0.40 | .1430 | .1229 | .1079 | .0962 | .0867 | .0786 | .0715 | .0655 | .0601 | .0552 |
| 0.41 | .1466 | .1262 | .1109 | .0989 | .0891 | .0809 | .0737 | .0674 | .0618 | .0568 |
| 0.42 | .1503 | .1295 | .1139 | .1017 | .0917 | .0832 | .0758 | .0694 | .0636 | .0584 |
| 0.43 | .1540 | .1329 | .1170 | .1045 | .0942 | .0855 | .0780 | .0713 | .0654 | .0601 |
| 0.44 | .1577 | .1362 | .1200 | .1072 | .0967 | .0879 | .0801 | .0733 | .0672 | .0618 |
| 0.45 | .1614 | .1396 | .1231 | .1101 | .0993 | .0902 | .0823 | .0753 | .0691 | .0635 |
| 0.46 | .1651 | .1430 | .1262 | .1129 | .1019 | .0926 | .0845 | .0773 | .0709 | .0652 |
| 0.47 | .1689 | .1464 | .1294 | .1158 | .1046 | .0950 | .0867 | .0794 | .0728 | .0669 |
| 0.48 | .1728 | .1499 | .1326 | .1187 | .1073 | .0975 | .0890 | .0815 | .0746 | .0687 |
| 0.49 | .1766 | .1535 | .1358 | .1217 | .1100 | .1000 | .0913 | .0836 | .0767 | .0705 |
| 0.50 | .1806 | .1571 | .1391 | .1248 | .1126 | .1026 | .0937 | .0858 | .0787 | .0724 |
| 0.51 | .1846 | .1606 | .1425 | .1279 | .1157 | .1052 | .0961 | .0880 | .0808 | .0743 |
| 0.52 | .1887 | .1646 | .1460 | .1311 | .1186 | .1079 | .0986 | .0903 | .0829 | .0762 |
| 0.53 | .1930 | .1685 | .1496 | .1344 | .1216 | .1107 | .1011 | .0927 | .0851 | .0782 |
| 0.54 | .1973 | .1725 | .1533 | .1378 | .1248 | .1136 | .1038 | .0951 | .0873 | .0803 |
| 0.55 | .2018 | .1767 | .1571 | .1413 | .1280 | .1166 | .1066 | .0976 | .0897 | .0825 |
| 0.56 | .2065 | .1810 | .1611 | .1450 | .1314 | .1197 | .1094 | .1003 | .0921 | .0847 |
| 0.57 | .2114 | .1855 | .1653 | .1488 | .1349 | .1230 | .1124 | .1031 | .0947 | .0871 |
| 0.58 | .2165 | .1902 | .1697 | .1528 | .1387 | .1264 | .1156 | .1060 | .0974 | .0896 |
| 0.59 | .2216 | .1952 | .1743 | .1571 | .1426 | .1300 | .1189 | .1091 | .1002 | .0922 |
| 0.60 | .2275 | .2005 | .1792 | .1616 | .1467 | .1338 | .1225 | .1123 | .1032 | .0950 |

TIME BETWEEN MEASUREMENTS = 250 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 10 | 20 | 30 | 40 | 50 | 60 | 70 | 80 | 90 | 100 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .9675 | .9369 | .9079 | .8804 | .8544 | .8297 | .8063 | .7840 | .7627 | .7424 |
| 0.31 | .9683 | .9383 | .9099 | .8830 | .8575 | .8332 | .8101 | .7882 | .7672 | .7472 |
| 0.32 | .9690 | .9397 | .9119 | .8855 | .8604 | .8366 | .8139 | .7922 | .7716 | .7519 |
| 0.33 | .9697 | .9410 | .9138 | .8879 | .8633 | .8398 | .8175 | .7962 | .7758 | .7563 |
| 0.34 | .9704 | .9423 | .9156 | .8902 | .8660 | .8430 | .8210 | .8000 | .7799 | .7606 |
| 0.35 | .9710 | .9435 | .9174 | .8925 | .8687 | .8460 | .8244 | .8036 | .7838 | .7648 |
| 0.36 | .9717 | .9447 | .9191 | .8946 | .8713 | .8489 | .8276 | .8072 | .7876 | .7688 |
| 0.37 | .9723 | .9459 | .9207 | .8967 | .8737 | .8518 | .8307 | .8106 | .7913 | .7727 |
| 0.38 | .9729 | .9470 | .9223 | .8987 | .8761 | .8545 | .8338 | .8138 | .7948 | .7765 |
| 0.39 | .9734 | .9480 | .9238 | .9006 | .8784 | .8571 | .8367 | .8171 | .7982 | .7801 |
| 0.40 | .9740 | .9491 | .9252 | .9024 | .8806 | .8596 | .8395 | .8201 | .8015 | .7836 |
| 0.41 | .9745 | .9500 | .9267 | .9042 | .8827 | .8621 | .8422 | .8231 | .8047 | .7870 |
| 0.42 | .9750 | .9510 | .9280 | .9060 | .8848 | .8645 | .8449 | .8260 | .8079 | .7904 |
| 0.43 | .9755 | .9519 | .9293 | .9077 | .8868 | .8668 | .8475 | .8288 | .8109 | .7936 |
| 0.44 | .9759 | .9528 | .9306 | .9093 | .8888 | .8690 | .8500 | .8316 | .8139 | .7968 |
| 0.45 | .9764 | .9537 | .9319 | .9109 | .8907 | .8712 | .8524 | .8343 | .8168 | .7999 |
| 0.46 | .9768 | .9546 | .9331 | .9125 | .8925 | .8733 | .8548 | .8369 | .8196 | .8029 |
| 0.47 | .9773 | .9554 | .9343 | .9140 | .8944 | .8755 | .8572 | .8395 | .8224 | .8059 |
| 0.48 | .9777 | .9562 | .9355 | .9155 | .8962 | .8775 | .8595 | .8421 | .8252 | .8088 |
| 0.49 | .9781 | .9570 | .9368 | .9170 | .8979 | .8796 | .8618 | .8446 | .8279 | .8118 |
| 0.50 | .9785 | .9578 | .9378 | .9184 | .8997 | .8816 | .8641 | .8471 | .8306 | .8147 |
| 0.51 | .9789 | .9586 | .9389 | .9199 | .9014 | .8836 | .8663 | .8498 | .8333 | .8178 |
| 0.52 | .9793 | .9594 | .9400 | .9213 | .9032 | .8856 | .8688 | .8521 | .8361 | .8205 |
| 0.53 | .9797 | .9601 | .9411 | .9227 | .9049 | .8876 | .8709 | .8548 | .8388 | .8234 |
| 0.54 | .9801 | .9609 | .9423 | .9242 | .9067 | .8896 | .8731 | .8571 | .8415 | .8264 |
| 0.55 | .9805 | .9617 | .9434 | .9255 | .9084 | .8917 | .8754 | .8597 | .8443 | .8294 |
| 0.56 | .9809 | .9625 | .9445 | .9271 | .9102 | .8938 | .8778 | .8623 | .8472 | .8325 |
| 0.57 | .9814 | .9633 | .9457 | .9286 | .9120 | .8959 | .8802 | .8649 | .8501 | .8356 |
| 0.58 | .9818 | .9641 | .9469 | .9301 | .9139 | .8980 | .8826 | .8677 | .8531 | .8389 |
| 0.59 | .9822 | .9649 | .9481 | .9317 | .9158 | .9003 | .8852 | .8705 | .8562 | .8422 |
| 0.60 | .9826 | .9657 | .9493 | .9333 | .9177 | .9026 | .8878 | .8734 | .8594 | .8457 |

TIME BETWEEN MEASUREMENTS = 250 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 110 | 120 | 130 | 140 | 150 | 160 | 170 | 180 | 190 | 200 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .7231 | .7046 | .6869 | .6700 | .6538 | .6382 | .6233 | .6089 | .5951 | .5818 |
| 0.31 | .7281 | .7098 | .6923 | .6755 | .6594 | .6440 | .6291 | .6148 | .6011 | .5878 |
| 0.32 | .7329 | .7148 | .6975 | .6809 | .6649 | .6496 | .6348 | .6206 | .6069 | .5937 |
| 0.33 | .7376 | .7197 | .7026 | .6861 | .6703 | .6550 | .6404 | .6262 | .6126 | .5995 |
| 0.34 | .7422 | .7245 | .7075 | .6911 | .6754 | .6603 | .6457 | .6317 | .6182 | .6051 |
| 0.35 | .7465 | .7290 | .7122 | .6960 | .6804 | .6654 | .6509 | .6370 | .6235 | .6105 |
| 0.36 | .7508 | .7334 | .7168 | .7007 | .6853 | .6704 | .6560 | .6421 | .6287 | .6158 |
| 0.37 | .7549 | .7377 | .7212 | .7053 | .6900 | .6752 | .6609 | .6471 | .6338 | .6208 |
| 0.38 | .7588 | .7418 | .7255 | .7097 | .6945 | .6798 | .6656 | .6519 | .6387 | .6258 |
| 0.39 | .7626 | .7458 | .7296 | .7140 | .6989 | .6843 | .6702 | .6566 | .6434 | .6306 |
| 0.40 | .7664 | .7497 | .7337 | .7182 | .7032 | .6887 | .6747 | .6612 | .6481 | .6354 |
| 0.41 | .7700 | .7535 | .7376 | .7222 | .7074 | .6930 | .6791 | .6656 | .6526 | .6400 |
| 0.42 | .7735 | .7571 | .7414 | .7262 | .7114 | .6972 | .6834 | .6700 | .6570 | .6445 |
| 0.43 | .7769 | .7607 | .7451 | .7300 | .7154 | .7013 | .6875 | .6743 | .6614 | .6489 |
| 0.44 | .7802 | .7642 | .7488 | .7338 | .7193 | .7053 | .6917 | .6785 | .6657 | .6532 |
| 0.45 | .7835 | .7677 | .7523 | .7375 | .7231 | .7092 | .6957 | .6826 | .6699 | .6575 |
| 0.46 | .7867 | .7710 | .7559 | .7412 | .7269 | .7131 | .6997 | .6867 | .6740 | .6618 |
| 0.47 | .7899 | .7744 | .7594 | .7448 | .7307 | .7170 | .7037 | .6907 | .6782 | .6660 |
| 0.48 | .7930 | .7777 | .7628 | .7484 | .7344 | .7208 | .7078 | .6948 | .6823 | .6702 |
| 0.49 | .7961 | .7810 | .7662 | .7519 | .7381 | .7246 | .7115 | .6988 | .6864 | .6744 |
| 0.50 | .7992 | .7842 | .7696 | .7555 | .7418 | .7284 | .7154 | .7028 | .6906 | .6788 |
| 0.51 | .8023 | .7875 | .7731 | .7591 | .7455 | .7323 | .7194 | .7069 | .6947 | .6829 |
| 0.52 | .8054 | .7908 | .7765 | .7627 | .7492 | .7361 | .7234 | .7110 | .6989 | .6872 |
| 0.53 | .8085 | .7941 | .7800 | .7663 | .7530 | .7400 | .7274 | .7152 | .7032 | .6918 |
| 0.54 | .8117 | .7974 | .7835 | .7700 | .7569 | .7440 | .7315 | .7194 | .7076 | .6961 |
| 0.55 | .8149 | .8008 | .7871 | .7737 | .7607 | .7481 | .7358 | .7238 | .7121 | .7007 |
| 0.56 | .8182 | .8043 | .7908 | .7776 | .7648 | .7523 | .7401 | .7282 | .7167 | .7054 |
| 0.57 | .8216 | .8079 | .7945 | .7816 | .7689 | .7568 | .7446 | .7329 | .7215 | .7103 |
| 0.58 | .8250 | .8116 | .7985 | .7857 | .7732 | .7611 | .7492 | .7377 | .7264 | .7154 |
| 0.59 | .8286 | .8154 | .8025 | .7899 | .7777 | .7657 | .7541 | .7427 | .7316 | .7208 |
| 0.60 | .8324 | .8194 | .8067 | .7944 | .7823 | .7706 | .7591 | .7479 | .7370 | .7264 |

TIME BETWEEN MEASUREMENTS = 250 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 230 | 260 | 290 | 320 | 350 | 380 | 410 | 440 | 470 | 500 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .5447 | .5113 | .4811 | .4537 | .4287 | .4058 | .3847 | .3654 | .3475 | .3310 |
| 0.31 | .5508 | .5175 | .4873 | .4598 | .4347 | .4117 | .3906 | .3711 | .3531 | .3365 |
| 0.32 | .5569 | .5236 | .4933 | .4658 | .4406 | .4175 | .3963 | .3767 | .3586 | .3419 |
| 0.33 | .5627 | .5295 | .4993 | .4717 | .4465 | .4233 | .4020 | .3823 | .3641 | .3473 |
| 0.34 | .5684 | .5352 | .5050 | .4774 | .4521 | .4289 | .4075 | .3877 | .3695 | .3526 |
| 0.35 | .5740 | .5408 | .5106 | .4830 | .4577 | .4344 | .4129 | .3931 | .3748 | .3578 |
| 0.36 | .5794 | .5463 | .5161 | .4885 | .4632 | .4398 | .4183 | .3984 | .3800 | .3629 |
| 0.37 | .5846 | .5516 | .5215 | .4939 | .4685 | .4451 | .4235 | .4036 | .3851 | .3679 |
| 0.38 | .5897 | .5568 | .5267 | .4991 | .4737 | .4503 | .4287 | .4087 | .3901 | .3729 |
| 0.39 | .5947 | .5619 | .5318 | .5042 | .4788 | .4554 | .4338 | .4137 | .3951 | .3779 |
| 0.40 | .5995 | .5668 | .5368 | .5093 | .4839 | .4604 | .4388 | .4187 | .4000 | .3827 |
| 0.41 | .6043 | .5717 | .5418 | .5142 | .4888 | .4654 | .4437 | .4236 | .4049 | .3876 |
| 0.42 | .6090 | .5765 | .5466 | .5191 | .4938 | .4703 | .4486 | .4285 | .4098 | .3924 |
| 0.43 | .6135 | .5812 | .5514 | .5240 | .4986 | .4752 | .4535 | .4334 | .4147 | .3973 |
| 0.44 | .6181 | .5858 | .5561 | .5288 | .5035 | .4801 | .4584 | .4382 | .4195 | .4021 |
| 0.45 | .6226 | .5904 | .5609 | .5338 | .5083 | .4849 | .4633 | .4431 | .4244 | .4070 |
| 0.46 | .6270 | .5950 | .5655 | .5383 | .5131 | .4898 | .4682 | .4480 | .4293 | .4119 |
| 0.47 | .6314 | .5996 | .5702 | .5431 | .5180 | .4947 | .4731 | .4530 | .4343 | .4168 |
| 0.48 | .6358 | .6042 | .5750 | .5479 | .5229 | .4996 | .4781 | .4580 | .4393 | .4219 |
| 0.49 | .6403 | .6088 | .5797 | .5528 | .5278 | .5047 | .4831 | .4631 | .4444 | .4270 |
| 0.50 | .6447 | .6134 | .5845 | .5577 | .5328 | .5097 | .4883 | .4683 | .4496 | .4323 |
| 0.51 | .6492 | .6182 | .5894 | .5627 | .5380 | .5149 | .4935 | .4738 | .4550 | .4377 |
| 0.52 | .6538 | .6229 | .5943 | .5678 | .5432 | .5203 | .4989 | .4791 | .4605 | .4432 |
| 0.53 | .6585 | .6278 | .5994 | .5731 | .5486 | .5258 | .5045 | .4847 | .4663 | .4490 |
| 0.54 | .6633 | .6329 | .6047 | .5785 | .5541 | .5315 | .5103 | .4906 | .4722 | .4550 |
| 0.55 | .6682 | .6381 | .6101 | .5841 | .5599 | .5374 | .5154 | .4968 | .4784 | .4613 |
| 0.56 | .6733 | .6434 | .6157 | .5900 | .5660 | .5436 | .5227 | .5032 | .4850 | .4679 |
| 0.57 | .6786 | .6491 | .6216 | .5961 | .5723 | .5501 | .5293 | .5100 | .4918 | .4748 |
| 0.58 | .6841 | .6549 | .6278 | .6025 | .5789 | .5569 | .5364 | .5171 | .4991 | .4822 |
| 0.59 | .6899 | .6611 | .6343 | .6093 | .5860 | .5642 | .5438 | .5247 | .5068 | .4900 |
| 0.60 | .6959 | .6678 | .6411 | .6164 | .5934 | .5718 | .5517 | .5328 | .5150 | .4984 |

TIME BETWEEN MEASUREMENTS = 250 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 550 | 600 | 650 | 700 | 750 | 800 | 850 | 900 | 950 | 1000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .3061 | .2842 | .2647 | .2474 | .2320 | .2182 | .2059 | .1948 | .1847 | .1757 |
| 0.31 | .3114 | .2893 | .2697 | .2522 | .2366 | .2227 | .2102 | .1990 | .1888 | .1797 |
| 0.32 | .3167 | .2944 | .2746 | .2570 | .2413 | .2272 | .2146 | .2032 | .1929 | .1837 |
| 0.33 | .3219 | .2994 | .2795 | .2617 | .2459 | .2317 | .2189 | .2074 | .1970 | .1876 |
| 0.34 | .3270 | .3044 | .2843 | .2664 | .2504 | .2361 | .2232 | .2116 | .2011 | .1916 |
| 0.36 | .3321 | .3093 | .2891 | .2711 | .2550 | .2405 | .2275 | .2158 | .2052 | .1956 |
| 0.36 | .3371 | .3142 | .2938 | .2757 | .2595 | .2449 | .2318 | .2200 | .2093 | .1996 |
| 0.37 | .3420 | .3190 | .2986 | .2803 | .2639 | .2493 | .2361 | .2241 | .2134 | .2036 |
| 0.38 | .3469 | .3238 | .3032 | .2849 | .2684 | .2536 | .2403 | .2283 | .2174 | .2075 |
| 0.39 | .3517 | .3285 | .3079 | .2894 | .2729 | .2580 | .2446 | .2325 | .2215 | .2115 |
| 0.40 | .3565 | .3333 | .3125 | .2939 | .2773 | .2623 | .2489 | .2366 | .2256 | .2155 |
| 0.41 | .3613 | .3380 | .3171 | .2985 | .2818 | .2667 | .2531 | .2408 | .2297 | .2195 |
| 0.42 | .3661 | .3427 | .3218 | .3030 | .2862 | .2711 | .2574 | .2451 | .2338 | .2236 |
| 0.43 | .3709 | .3474 | .3264 | .3076 | .2907 | .2755 | .2618 | .2493 | .2380 | .2277 |
| 0.44 | .3757 | .3521 | .3311 | .3122 | .2953 | .2800 | .2662 | .2537 | .2423 | .2319 |
| 0.45 | .3805 | .3569 | .3358 | .3169 | .2999 | .2845 | .2707 | .2581 | .2466 | .2361 |
| 0.46 | .3854 | .3618 | .3406 | .3216 | .3046 | .2892 | .2752 | .2625 | .2510 | .2405 |
| 0.47 | .3903 | .3667 | .3455 | .3265 | .3093 | .2939 | .2799 | .2671 | .2555 | .2449 |
| 0.48 | .3954 | .3717 | .3505 | .3314 | .3142 | .2987 | .2846 | .2718 | .2601 | .2494 |
| 0.49 | .4005 | .3768 | .3556 | .3365 | .3192 | .3037 | .2895 | .2766 | .2649 | .2541 |
| 0.50 | .4056 | .3818 | .3606 | .3417 | .3244 | .3088 | .2946 | .2817 | .2699 | .2590 |
| 0.51 | .4112 | .3875 | .3662 | .3471 | .3298 | .3141 | .2998 | .2868 | .2750 | .2641 |
| 0.52 | .4168 | .3931 | .3719 | .3527 | .3353 | .3196 | .3053 | .2922 | .2803 | .2693 |
| 0.53 | .4226 | .3990 | .3777 | .3585 | .3412 | .3254 | .3110 | .2979 | .2859 | .2748 |
| 0.54 | .4287 | .4051 | .3838 | .3646 | .3472 | .3314 | .3170 | .3039 | .2918 | .2806 |
| 0.55 | .4351 | .4115 | .3903 | .3711 | .3536 | .3378 | .3234 | .3101 | .2980 | .2868 |
| 0.56 | .4416 | .4183 | .3971 | .3779 | .3604 | .3446 | .3301 | .3168 | .3046 | .2933 |
| 0.57 | .4488 | .4254 | .4042 | .3851 | .3676 | .3517 | .3372 | .3239 | .3116 | .3002 |
| 0.58 | .4563 | .4330 | .4119 | .3927 | .3753 | .3594 | .3448 | .3314 | .3190 | .3076 |
| 0.59 | .4643 | .4411 | .4200 | .4009 | .3835 | .3675 | .3529 | .3395 | .3270 | .3155 |
| 0.60 | .4728 | .4497 | .4287 | .4096 | .3922 | .3763 | .3616 | .3481 | .3356 | .3240 |

TIME BETWEEN MEASUREMENTS = 250 HOURS

PREDICTION TIME IN HOURS

| R2/R1 | 1200 | 1400 | 1600 | 1800 | 2000 | 2200 | 2400 | 2600 | 2800 | 3000 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.30 | .1468 | .1265 | .1112 | .0992 | .0894 | .0811 | .0739 | .0676 | .0620 | .0569 |
| 0.31 | .1505 | .1297 | .1141 | .1018 | .0918 | .0833 | .0759 | .0695 | .0637 | .0585 |
| 0.32 | .1541 | .1329 | .1171 | .1045 | .0943 | .0856 | .0780 | .0714 | .0655 | .0601 |
| 0.33 | .1577 | .1362 | .1200 | .1073 | .0967 | .0878 | .0801 | .0733 | .0672 | .0618 |
| 0.34 | .1613 | .1395 | .1230 | .1100 | .0992 | .0901 | .0822 | .0752 | .0690 | .0634 |
| 0.35 | .1649 | .1428 | .1260 | .1127 | .1018 | .0924 | .0843 | .0772 | .0708 | .0651 |
| 0.36 | .1685 | .1461 | .1290 | .1155 | .1043 | .0948 | .0865 | .0792 | .0726 | .0667 |
| 0.37 | .1721 | .1494 | .1320 | .1182 | .1068 | .0971 | .0886 | .0811 | .0744 | .0684 |
| 0.38 | .1757 | .1527 | .1351 | .1210 | .1094 | .0994 | .0908 | .0831 | .0763 | .0701 |
| 0.39 | .1794 | .1560 | .1381 | .1238 | .1120 | .1018 | .0930 | .0851 | .0781 | .0718 |
| 0.40 | .1831 | .1594 | .1412 | .1267 | .1146 | .1042 | .0952 | .0872 | .0800 | .0735 |
| 0.41 | .1868 | .1628 | .1443 | .1295 | .1172 | .1066 | .0974 | .0892 | .0819 | .0753 |
| 0.42 | .1905 | .1662 | .1475 | .1324 | .1199 | .1081 | .0987 | .0913 | .0838 | .0771 |
| 0.43 | .1943 | .1697 | .1507 | .1354 | .1226 | .1116 | .1020 | .0934 | .0858 | .0789 |
| 0.44 | .1982 | .1733 | .1540 | .1384 | .1254 | .1141 | .1043 | .0958 | .0878 | .0807 |
| 0.45 | .2021 | .1769 | .1574 | .1415 | .1282 | .1168 | .1067 | .0978 | .0898 | .0826 |
| 0.46 | .2061 | .1806 | .1608 | .1447 | .1311 | .1194 | .1092 | .1001 | .0919 | .0845 |
| 0.47 | .2102 | .1845 | .1643 | .1479 | .1341 | .1222 | .1117 | .1024 | .0941 | .0865 |
| 0.48 | .2145 | .1884 | .1680 | .1513 | .1372 | .1251 | .1144 | .1049 | .0963 | .0888 |
| 0.49 | .2189 | .1925 | .1717 | .1548 | .1404 | .1280 | .1171 | .1074 | .0986 | .0907 |
| 0.50 | .2234 | .1967 | .1757 | .1584 | .1439 | .1311 | .1199 | .1100 | .1010 | .0930 |
| 0.51 | .2282 | .2011 | .1797 | .1622 | .1472 | .1343 | .1229 | .1127 | .1036 | .0953 |
| 0.52 | .2331 | .2057 | .1840 | .1661 | .1509 | .1377 | .1260 | .1155 | .1062 | .0977 |
| 0.53 | .2383 | .2106 | .1885 | .1703 | .1547 | .1412 | .1293 | .1189 | .1090 | .1003 |
| 0.54 | .2439 | .2157 | .1932 | .1746 | .1588 | .1449 | .1327 | .1218 | .1118 | .1030 |
| 0.55 | .2496 | .2211 | .1983 | .1793 | .1631 | .1489 | .1364 | .1252 | .1151 | .1059 |
| 0.56 | .2557 | .2268 | .2036 | .1842 | .1676 | .1531 | .1403 | .1288 | .1184 | .1090 |
| 0.57 | .2623 | .2330 | .2093 | .1895 | .1725 | .1575 | .1444 | .1326 | .1219 | .1123 |
| 0.58 | .2693 | .2395 | .2154 | .1952 | .1778 | .1625 | .1489 | .1367 | .1258 | .1159 |
| 0.59 | .2768 | .2466 | .2220 | .2013 | .1834 | .1677 | .1537 | .1412 | .1299 | .1196 |
| 0.60 | .2849 | .2542 | .2290 | .2078 | .1894 | .1733 | .1589 | .1459 | .1343 | .1237 |

APPENDIX B

ALGORITHM FOR EXPOSURE AND EXPOSURE RATE PREDICTIONS

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APPENDIX B

ALGORITHM FOR EXPOSURE AND EXPOSURE RATE PREDICTIONS

The basis for both the prediction tables in Appendix A and the computer programs in Appendix C is the TUBALLOY fallout radionuclide composition. The time behavior of the exposure rates from this mixture, on a relative basis, can be described by a function $f(t)$ which is the sum of nine exponential terms:

$$f(t) = \sum_{i=1}^{i=9} A_i \cdot \text{EXP}(-B_i t), \quad \text{where}$$

| | |
|----------------------------|---|
| $A_1 = 1.52465\text{E-}05$ | $B_1 = 3.23952\text{E-}04 \text{ h}^{-1}$ |
| $A_2 = 1.76672\text{E-}05$ | $B_2 = 6.59202\text{E-}04 \text{ h}^{-1}$ |
| $A_3 = 2.45898\text{E-}04$ | $B_3 = 2.77503\text{E-}03 \text{ h}^{-1}$ |
| $A_4 = 1.18320\text{E-}03$ | $B_4 = 9.90745\text{E-}03 \text{ h}^{-1}$ |
| $A_5 = 3.74376\text{E-}03$ | $B_5 = 3.9319\text{E-}02 \text{ h}^{-1}$ |
| $A_6 = 1.23914\text{E-}02$ | $B_6 = 1.15218\text{E-}01 \text{ h}^{-1}$ |
| $A_7 = 4.21521\text{E-}02$ | $B_7 = 3.36570\text{E-}01 \text{ h}^{-1}$ |
| $A_8 = 2.92351\text{E-}01$ | $B_8 = 8.13610\text{E-}01 \text{ h}^{-1}$ |
| $A_9 = 6.47900\text{E-}01$ | $B_9 = 2.49762\text{E-}00 \text{ h}^{-1}$ |

Note that the A_i coefficients have been normalized so that the function has a value of 1.0 when $t = 0$. This normalization is not important in its use because all exposure rates are calculated on a relative basis and normalized with the second exposure rate measurement used to make a prediction. The computer programs use a different normalization factor so the A_i coefficients are different than those listed above by a constant factor.

The ratio, R , of the second exposure rate, X_2 , to the first exposure rate, X_1 , is equated to the ratio of $f(t_2)$ to $f(t_1)$ to determine a reference time for determining the predicted exposure rate X_3 . The times t_1 and t_2 are expressed in terms of the reference time t and the time, T , between the two measured exposure rates:

$$t_1 = t, \text{ and}$$

$$t_2 = t + T, \text{ resulting in the equation:}$$

$$R = f(t+T)/f(t).$$

This equation cannot be solved algebraically for the reference time t , therefore its solution is determined by the Newton-Raphson iteration technique:

$$\text{Let } G(t) = R - f(t+T)/f(t) = 0$$

The root of $G(t)$ is the time that causes $G(t)$ to be zero and is therefore equal to the reference time, t .

The iteration technique uses a previous (initially a guess) value of t to generate a closer estimate of the correct reference time t . Let the previous t estimate be t_n and the new estimate be t_{n+1} , then:

$$t_{n+1} = t_n + h(t_n), \text{ where}$$

$$h(t) = -G(t)/G'(t) \text{ and}$$

$$G'(t) = \text{the time derivative of } G(t).$$

The successive values of $h(t_n)$ will decrease to zero if the function $G(t)$ is well behaved, a condition that is met if reasonable exposure rates and time differences are used as input. The reference time t is obtained when the value of h is small compared to t itself. Then the predicted exposure rate X_3 is calculated:

$$X_3 = X_2 \cdot f(t+T+T_p)/f(t+T), \text{ where}$$

$$T_p = \text{the prediction time} = \text{the time between } X_2 \text{ and } X_3.$$

Note that the exposure rate tables produce factors that equal the ratio of functions that multiply X_3 in the above equation. In other words the tabled factors, F are

$$F = f(t+T+T_p)/f(t+T).$$

The total exposure prediction tables and computer program use the same reference time t to calculate the quotient of the total exposure during time interval T_s to the exposure rate X_2 . This ratio can be determined from the integral of the function $f(t)$ over the appropriate time interval. Let $I(t)$ be the function obtained by integrating $f(t)$ from 0 to t :

$$I(t) = \sum_{i=1}^{i=9} A_i \cdot \text{EXP}(-B_i t) \cdot (1 - \text{EXP}(-B_i t)) / B_i.$$

Then the predicted exposure X over the predicted time interval T_s starting at time T_p after the second measurement X_2 is:

$$X = X_2 \cdot (I(t+T+T_p+T_s) - I(t+T+T_p)) / f(t+T+T_p).$$

The factor printed in the total exposure prediction tables [Fr85] are equal to the factor multiplying X_2 in this equation. Care must be taken when calculating the function $1 - \text{EXP}(-Bt)$ when the product Bt is much less than one. Because of the limited precision of a computer or calculator, it is better to use Bt itself as an approximation to this function when Bt is much less than one. The computer programs in Appendix C use this whenever Bt is less than 0.00001.

APPENDIX C

EXPOSURE AND EXPOSURE RATE
PREDICTION COMPUTER PROGRAMS

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```

10 REM      ##### # # ##### ### ##### # # ##### #####
15 REM      # # # # # # # # # # # # # # # # # # # # #
20 REM      ##### # ##### # # ##### # # ##### #####
25 REM      # # # # # # # # # # # # # # # # # # # # #
30 REM      ##### # # # ##### ##### ### # # #####
35 REM
40 REM      *****
45 REM      **
50 REM      **          Fallout Exposure Prediction Program      **
55 REM      **          Clayton French                          **
60 REM      **
65 REM      *****
70 REM
75 DIM a(10),b(10),c(10),d(10),gamma(10)
80 GOTO 265
85 REM INPUT ROUTINE
90 INPUT"Enter the first exposure rate measurement, in R/hr: ";x1
95 PRINT
100 INPUT"Enter the second exposure rate measurement, in R/hr: ";x2
105 ratio=x2/x1
110 PRINT
115 INPUT"Enter the time between these measurements, in hours: ";t2
120 PRINT
125 IF(x1-x2)/t2<.001 THEN PRINT:PRINT"THESE MEASUREMENTS DO NOT DECREASE
ENOUGH OVER THE TIME INTERVAL TO YIELD AN ACCURATE PREDICTION. TRY
OTHER MEASUREMENTS":PRINT:GOTO 90
130 INPUT"Enter the time between the second exposure rate measurement
and the start of the exposure interval, in hours: ";t3
135 PRINT
140 INPUT"Enter the exposure time interval (atay time), in hours: ";t4
145 RETURN
150 REM ASSIGN CONSTANT VALUES
155 DATA 4.81799E-07,5.58295E-07,7.77053E-06,3.73898E-05,1.18305E-04,
3.91576E-04,1.33203E-03,9.23846E-03,.020474,3.23952E-04,
6.59202E-04,2.77503E-03,9.90745E-03,.0393198,.115218,.33657,
.81361,2.49762
160 FOR i=1 TO 9:READ a(i):NEXT i
165 FOR i=1 TO 9:READ gamma(i):NEXT i:RESTORE
170 FOR i=1 TO 9
175   b(i)=a(i)*EXP(-gamma(i)*t2);c(i)=b(i)*EXP(-gamma(i)*t3)
180   IF gamma(i)*t4<.00001 THEN d(i)=c(i)*t4:GOTO 190
185   d(i)=c(i)/gamma(i)*(1-EXP(-gamma(i)*t4))
190   NEXT i
195 RETURN
200 REM ITERATE THE NEXT VALUE OF t
205 g1=0:g2=0:g1prime=0:g2prime=0:h=0
210 FOR i=1 TO 9
215   g1=g1+a(i)*EXP(-gamma(i)*t)
220   g2=g2+b(i)*EXP(-gamma(i)*t)
225   g1prime=g1prime+a(i)*gamma(i)*EXP(-gamma(i)*t)
230   g2prime=g2prime+b(i)*gamma(i)*EXP(-gamma(i)*t)
235   NEXT i
240   g1prime=-g1prime:g2prime=-g2prime
245   h1=(g2/g1-ratio)
250   h2=((g2*g1prime-g1*g2prime)/g1^2)
255   h=h1/h2

```

```

260 RETURN
265 GOSUB 85
270 GOSUB 150
275 t=1
280 GOSUB 200
285 IF ABS(h)/t<.00001 THEN 295
290 t=t+h:GOTO 280
295 g3=0
300 FOR i=1 TO 9
305   g3=g3+d(i)*EXP(-gamma(i)*t)
310   NEXT i
315 fraction=g3/g2:x=x2*fraction
320 PRINT:PRINT"PREDICTED EXPOSURE = ";x;" R":PRINT
325 IF t<10 THEN PRINT:PRINT"Note: This prediction may have a large
    uncertainty because the measurements":PRINT"it is based on appear
    to have been made too soon after fallout deposition."
330 IF ratio>0.6 THEN PRINT:PRINT"Note: This prediction may have a large
    uncertainty because the measurements":PRINT"show little decrease over
    the time interval entered."

```

```

10 REM      ##### # # #####      ##### # ##### #####
15 REM      # # # #      # # # #
20 REM      ##### # #####      ##### # #####
25 REM      # # # #      # # # # # # #
30 REM      ##### # # #      # # # # # #####
35 REM
40 REM *****
45 REM **
50 REM **      Fallout Exposure Rate Prediction Program      **
55 REM **      Clayton French                                **
60 REM **
65 REM *****
70 REM
75 DIM a(10),b(10),c(10),gamma(10)
80 GOTO 240
85 REM INPUT ROUTINE
90 INPUT"Enter the first exposure rate measurement, in R/hr: ";x1
95 PRINT
100 INPUT"Enter the second exposure rate measurement, in R/hr: ";x2
105 PRINT
110 INPUT"Enter the time between these measurements, in hours: ";t2
115 PRINT
120 IF(x1-x2)/t2<.001 THEN PRINT:PRINT"THESE MEASUREMENTS DO NOT DECREASE
    ENOUGH OVER THE TIME INTERVAL TO YIELD AN ACCURATE PREDICTION. TRY
    OTHER MEASUREMENTS":PRINT:GOTO 90
125 INPUT"Enter the time between the second exposure rate measurement
    and the exposure rate to be predicted, in hours: ";t3
130 PRINT
135 ratio=x2/x1
140 RETURN
145 REM ASSIGN CONSTANT VALUES
150 DATA 4.81799E-07,5.58295E-07,7.77053E-06,3.73898E-05,1.18305E-04,
    3.91576E-04,1.33203E-03,9.23846E-03,.020474,3.23952E-04,
    6.59202E-04,2.77503E-03,9.90745E-03,.0393198,.115218,.33657,
    .81361,2.49762
155 FOR i=1 TO 9:READ a(i):NEXT i
160 FOR i=1 TO 9:READ gamma(i):NEXT i:RESTORE
165 FOR i=1 TO 9:b(i)=a(i)*EXP(-gamma(i)*t2):c(i)=
    b(i)*EXP(-gamma(i)*t3):NEXT i
170 RETURN
175 REM ITERATE THE NEXT VALUE OF t
180 g1=0:g2=0:g1prime=0:g2prime=0:h=0
185 FOR i=1 TO 9
190     g1=g1+a(i)*EXP(-gamma(i)*t)
195     g2=g2+b(i)*EXP(-gamma(i)*t)
200     g1prime=g1prime+a(i)*gamma(i)*EXP(-gamma(i)*t)
205     g2prime=g2prime+b(i)*gamma(i)*EXP(-gamma(i)*t)
210 NEXT i
215 g1prime=-g1prime:g2prime=-g2prime
220 h1=(g2/g1-ratio)
225 h2=((g2*g1prime-g1*g2prime)/g1^2)
230 h=h1/h2
235 RETURN
240 GOSUB 85
245 GOSUB 145
250 t=t1

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255 GOSUB 175
260 IF ABS(h)/t<.00001 THEN 270
265 t=t+h:GOTO 255
270 g3=0
275 FOR i=1 TO 9
280     g3=g3+c(i)*EXP(-gamma(i)*t)
285 NEXT i
290 fraction=g3/g2:x3=x2*fraction
295 PRINT:PRINT"PREDICTED EXPOSURE RATE = ";x3;" R/hr":PRINT
300 IF t<10 THEN PRINT:PRINT"Note: This prediction may have a large
    uncertainty because the measurements":PRINT"it is based on appear
    to have been made too soon after fallout deposition."
305 IF ratio>0.6 THEN PRINT:PRINT"Note: This prediction may have a large
    uncertainty because the measurements":PRINT"show little decrease over
    the time interval entered."

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- Fr85 French, Clayton S. and Desilets, Michael P., "Techniques for Predicting Fallout Radiation Exposures from Exposure and Exposure Rate Measurements", Federal Emergency Management Agency, TR-89/September 1985.
- Hi84 Hicks, Harry, 1984, "Results of Calculations of External Gamma Radiation Exposure Rates from Local Fallout and the Related Radionuclide Compositions of Two Hypothetical 1-MT Air Bursts", Lawrence Livermore National Laboratory, University of California, Livermore, California.

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